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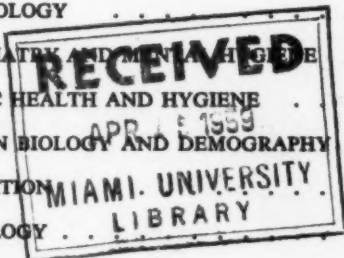
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Abstracts of Articles

MORPHOLOGY

1. ACHESON, R. M., & DUPERTUIS, C. W. (Western Reserve Univer., Cleveland, Ohio) **The relationship between physique and rate of skeletal maturation in boys.** Hum. Biol., 1957, **29**, 167-193. Skeletal maturity of boys was assessed from X-ray photographs of the hip and pelvis, and 128 of the boys had been somatotyped according to Sheldon's classification. The boys were divided into 4 groups on the basis of rate of maturation, and it was found that Component II, ruggedness, was higher among fast maturers, Component III, delicacy and linearity, was higher among slow maturers, and there was a suggestion that Component I, roundness and softness, was higher among fast maturers. A scatter diagram of rate of maturation plotted against final adult height for ectomorphs and mesomorphs among the boys showed the former to be slower maturing and taller than the latter. The next question examined was whether the pattern of skeletal maturation was associated with physique. Three types of centres of ossification were examined, an articular epiphysis, represented by the femur head, a traction epiphysis, represented by the greater trochanter, and a primary centre, the junction of the pubic and ischial rami. The state of maturity of each is indicated, and they were compared for ectomorphs, mesomorphs and controls as represented by the boys who were not predominantly either. The mesomorphs achieved complete fusion of the articular epiphysis before the controls, who were earlier than the ectomorphs, but no group difference was detectable in earlier stages of ossification of this part. It is suggested that the short bones of the hand might give the same result. It was only in earlier stages of ossification of the traction epiphysis that group differences were of note, whereas the same steady group differences were observable at all stages of ossification of the primary centre. The rest of the paper is devoted to an examination of the literature on the rate of skeletal and sexual maturation of very obese boys and the results are mostly expressed in graphical form, leading to the conclusion that obese boys mature more rapidly and reach a smaller adult height than either the ectomorphs or the mesomorphs of the present study. The general conclusion is that there is some genetically controlled basic relation between physique and skeletal or sexual maturation, but that environmental effects distort and conceal it. A knowledge of the somatotype assessment of a child could help in the diagnosis of his growth pattern. —A. W. Boyne (Nutrition Abstr., 28:953).

2. BLÁŽEK, F., HRUBCOVÁ, M., KAPALÍN, V., ODHÁZELOVÁ, E., PROKOPEC, M., PROŠEK V., & ŠOBOVÁ, A. **Vyšetřování, sledování a hodnocení růstu a vývoje mládeže.** (Examination, follow-up and assessment of the physical growth and development of children.) Česk. Pediat., 1958, **13**, 296-303. Somatometric investigation of children was started in Czechoslovakia in the middle of the last century, and concerned mainly smaller groups. Matejka laid its scientific foundations and also made the first large-scale anthropometric investigation towards the end of the century. The first national anthropometric investigation of a representative sample was done in 1951. The accumulation of somatomerical material has now been followed by studies on growth influences and the causes of growth irregularities. The method of static cross-sectional mass surveys of large samples, resulting mainly in growth tables is supplemented by the dynamic method of "longitudinal" follow-up of development and growth on smaller, but more completely investigated, groups of the same children. Apart from the basic body-characteristics, i.e., height and weight, it is necessary to establish some others and their interrelations, which would make possible to evaluate body proportions and somatic type. Apart from growth

standards and assessment based on averages and dispersion characteristics, various other graphic methods are being elaborated facilitating assessment and follow-up. In Czechoslovakia this is in particular the graphic method proposed by Kaplan and Prokopec. Observation of endogenous and exogenous factors of growth is only just starting. . . . From English Summary.

3. BOLŠAKOVA, M. D. *Dinamičeskije nabljudenija za fizičeskim razvitiem detej v SSSR.* (Dynamic studies of the physical growth of children in the U.S.S.R.) *Gigiena Sanit.*, 1958, No. 1, 32-38. A survey, based on the literature covering periods before, during and after the second world war, was made of the measurements of height, weight and chest circumference of children 1 to 16 years old in a number of cities in the U.S.S.R. The results are compared and tables and graphs are given showing changes in some of the places. The war years, particularly 1943 and 1945, when compared with 1934 and 1938, were generally characterised by significant reductions of height by up to 8.3 cm., of weight by up to 4.8 kg. and of chest circumference by up to 3 cm. Height was particularly affected in children of pre-school age and in 14-year-olds and weight in those approaching or at puberty. After the liberation of Orel in 1943 the percentage of girls who did not menstruate was 97.4 at 13, 82 at 14, 67 at 15 and 40 at 16 years of age. The percentage of boys with retarded descent of one or both testicles was 13.3 at 7, 17.6 at 8, 20.3 at 9, 10.4 at 10, 9.7 at 11, 5.1 at 12 and 1.1 at 13 years of age. In years immediately after the end of the war there was a general improvement of the physical growth of all age groups, but the restoration of growth was less rapid in younger than in older children. By 1955 and 1956 the pre-war levels were surpassed in most age groups; for height by up to 7 cm., for weight by up to 6.9 kg. and for chest circumference by up to 3.5 cm. Exceptions to this were 5- and 6-year-old Moscow children, who were still below the pre-war level in respect to all 3 measurements, the 7-, 8- and 10-year-old Orel girls in respect to chest circumference and the 8- and 11-year-old Leningrad girls in respect of height and the 8-year-old also in respect of weight. The improvements were attributed to better living conditions, nutrition and medical care. —S. Avakumovic (Nutrition Abstr., 28:3988).

4. BURKE, P. H., & NEWELL, D. J. A photographic method of measuring eruption of certain human teeth. *Amer. J. Orthodont.*, 1958, 44, 590-602. The authors describe a photographic method of measuring active clinical eruption of human permanent maxillary central incisors. The eruption curve of the left II is y (mm.) = $0.064 + 5.217^{-0.0123x}$; for right II is y (mm.) = $0.733 + 3.476^{-0.0210x}$. Goodness of fit is discussed. —W. M. Krogman.

5. ČAPKOVÁ-PARÍZKOVÁ, JANA. Měření podkožního tuku caliperem. (Measuring subcutaneous fat by means of a caliper.) *Česk. Pediat.*, 1958, 13, 310-311.

6. GARN, S. M. Statistics: a review. *Angle Orthodont.*, 1958, 28, 149-165. A general discussion of statistics in dentistry: problems of proof, measures of central tendency or dispersion, tests of significance, measures of correlation. Data from dental cases are presented by way of illustrations. —W. M. Krogman.

7. HERINGOVÁ, A. Vztah osifikačních jader k zralosti novorozenců. (The relation of ossification centres to maturity of newborns.) *Česk. Pediat.*, 1958, 13, 614-618. In 80 mature newborns and 136 newborns of birth weight between 2300 and 2800 g. the status of ossification was determined on X-ray films. This can be evaluated as a criterion of maturity as follows: a. Ossification proceeds more quickly in female infants. b. Femoral centres are not present only in severe degrees of immaturity. c. Absence of tibial centres is a reliable sign of immaturity, more so than its presence is of maturity. d. Length of pregnancy is the most important yardstick of maturity. e. No relationship between birth weight and length and the degree of ossification was found. —English Summary.

8. HUGHES, B. O. Dental development and the child as a whole. *Amer. J. Orthodont.*, 1958, 44, 565-574. Emphasis is upon the individuality of growth

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pattern. Organismic age is calculated as the least squares fit of the equation $Y = AX^{n+1} + C$ to the arithmetic means of 36 selected measurements (3 from the intelligence area, 8 from the school achievement field, 2 from the growing skeleton, 17 from the dentition, and 1 each for H, W, grip strength, behavior, personality structure, and social maturity) and is graphed as a heavy line. On either side of it is a dense band called the organismic area, obtained by a least squares fit of the above equation to the roots of the variances, computed on both axes, at yearly and half-yearly intervals. Hughes presents 5 case histories of growth progress in cases of malocclusion and analyzes growth progress in great detail. —W. M. Krogman.

9. KASIUS, R. V., RANDALL, A., TOMPKINS, W. T., & WIEHL, D. G. Maternal and newborn nutrition studies at Philadelphia Lying-In Hospital. Newborn studies. 5. Size and growth of babies during the first year of life. Millbank Mem. Fund Quart., 1957, 35, 323-372. Measurements were made at birth and at 3, 6 and 12 months of age in 354 Negro infants and 1037 white infants of predominantly Italian ancestry, of weight, chest circumference, crown-sole length, crown-rump length, rump-sole length, hip breadth, head circumferences and calf circumference. The results, for males and females, Negro and white, are analysed separately in detail. Mean values were greater for males than for females and in general white babies were larger than Negroes. The linear measurements were poorly correlated with each other at each age; they were more closely correlated with weight. Correlations between measurements at birth and subsequent measurements were generally low; the best were for length and head circumference. There were better correlations between measurements at 3 and 6 months and 6 and 12 months. —F. E. Hytten (Nutrition Abstr., 28:2567).

10. LAMONS, F. F., & GRAY, S. W. A study of the relationship between tooth eruption age, skeletal development age, and chronological age, in 61 Atlanta children. Amer. J. Orthodont., 1958, 44, 687-691. Schour and Massler's standards of tooth development and Greulich and Pyle's standards of skeletal age (hand) were used. Subjects were 25 white boys, 36 white girls, middle socioeconomic class, 4 to 15 age-range, seen 1 to 6 times, on annual basis. In boys tooth age = $+1.0338$ years $+ 0.8712 \times$ hand age ($r = 0.9361$); tooth age = $+0.391$ years $+ 0.9154 \times$ chronological age ($r = 0.9669$). In girls tooth age = -0.7867 years $+ 1.0490 \times$ hand age ($r = 0.8894$); tooth age = -0.158 years $+ 0.9993 \times$ chronological age ($r = 0.9561$). Trend lines calculated by least squares, and r by product-moment method. Authors conclude that hand development and tooth development may vary independently, more frequently in boys. In only 60% of cases teeth and hands developed concomitantly. —W. M. Krogman.

11. NARAYAN, D., & BAJAJ, I. D. (K. G. Medical College, Lucknow) Ages of epiphyseal union in long bones of inferior extremity in U. P. subjects. Indian J. med. Res., 1957, 45, 645-649. X-ray studies were made of the left leg bones of 300 men of the United Provinces in India, 50 in each annual age group from 15 to 20. Complete union of the epiphysis and the diaphysis was never found before the 18th year or later than the 19th, for the lower end of the femur, the upper end of the tibia or the upper end of the fibula. At the lower end of the fibula union was found sometimes in the 17th year, at the lower end of the tibia it was again found in some subjects by 17 and was never delayed later than the 18th year. The ages at which union of the epiphyses is complete are greater than have been found by other workers for Bengalis, Punjabis, and Madrassis, but are less than the ages for Europeans. Studies on 25 girls over the same age range suggested that union was two to three years earlier in girls. —I. McDonald (Nutrition Abstr., 28:2571).

12. SCHOLZ, E. Die Sonderstellung des Brustumfangwachstums und seine Bedeutung für die Phaseneinteilung des Wachstums. (Special position of growth in circumference of the thorax and its importance for separating phases of growth.) Z. Kinderheilk., 1957, 80, 123-135. Zeller claimed a distinguished change of form between pre-school children and schoolchildren. To test this claim the data of Stuart

and Stevenson were analyzed, and are interpreted to show a uniform behaviour of growth in total length, sitting height and hence their difference, "leg" length and "linear" height (cube root of weight) from two years of age to puberty. In contrast, breast circumference grew much less in the pre-school years 2 to 6 than from 6 to puberty. —I. Leitch (Nutrition Abstr., 28:952).

13. SCHRAER, HARALD. (Pennsylvania State Univer., University Park) **Quantitative roentgenography of skeletal mineralization in malnourished Quechua Indian boys.** *Science*, 1958, 128, 476-477. Densitometric analysis and assessment of skeletal age, based on posteroanterior roentgenograms of the left hand of 91 Quechua Indian boys aged 7 to 20 years, revealed depressed bone mineralization and retardation in skeletal maturation. The findings are related to the dietary of the subjects.

14. SCOTT, J. H. **The analysis of facial growth. II. The horizontal and vertical dimensions.** *Amer. J. Orthodont.*, 1958, 44, 585-589. A new method of analyzing facial growth is devised, based on "frontal cephalograms," from which a "frontal rectangle" is derived (drawn on the film). Growth in facial width is discussed in the midline, and also in lateral areas. Growth in height is discussed in orbital, respiratory, and alveolar areas. Growth in facial skeleton has a low *r* with growth of cranium; also a low *r* between bizygomatic and palatal width growth, and between growth in orbital width, nasal cavities and palate. —W. M. Krogman.

PHYSIOLOGY AND BIOCHEMISTRY

15. BAKER, H. (Mount Sinai Hospital, New York City), ZIFFER, H., PASHER, I., & SOBOTKA, H. **A comparison of maternal and foetal folic acid and vitamin B₁₂ at parturition.** *Brit. med. J.*, 1958, 1, 978-979. Vitamin B₁₂ and PGA levels were determined on serums paired for mother and infant. Blood from the mother was drawn from the antecubital vein at time of delivery; cord blood was used for the infant. Both vitamin B₁₂ and PGA levels were lower in the mother as compared to those in the infant, in some cases, the concentration in the infant was four times higher. It is suggested that the rapidly growing fetus draws heavily on maternal vitamin B₁₂ stores throughout pregnancy. —W. W. Sutow.

16. BAYLEY, NANCY, GORDAN, GILBERT S., & LISSER, H. Long-term experiences with methyltestosterone as a growth stimulant in short immature boys. In *The Pediatric Clinics of North America*. Philadelphia: Saunders, 1957. Pp. 819-825. A report of "data on rates of growth and of skeletal maturation . . . based on 59 short, retarded boys treated with methyltestosterone and 13 similarly retarded boys treated with methyltestosterone and thyroid substance. . . . Control data were derived from 25 late-maturing boys previously reported by Bayley. . . . In summary, treatment with methyltestosterone may evoke two types of skeletal response: (1) linear growth and (2) maturation. The average figures for the relatively small doses we have used show no disproportionate skeletal maturation. However, as may be inferred from standard deviations, a few boys attained several inches more and a few several inches less than the heights predicted for them. . . . It may be argued that the increase of ultimate stature by 1 or 2 inches is a poor reason for treatment. With this we agree. It is not the possibility of increasing adult height, but the production of a puberal spurt when the youngster is psychologically disturbed by his inferiority to his classmates that makes this treatment of value."

17. BRYANT, F. J. (A.E.R.E., Harwell, England), CHAMBERLAIN, A. C., SPICER, G. S., & WEBB, M. S. W. **Strontium in diet.** *Brit. med. J.*, 1958, 1, 1371-1375. Analysis of the stable strontium and strontium-90 content of foods in Wales and the west and north of England enables an estimate of the average intake in diet to be made. It is found that the mean strontium-90/calcium ratio in the adult diet in the summer of 1957 was 5.6 $\mu\text{c/g}$. This is about the ratio in the milk portion

alone. Individuals who draw their milk and other food supplies from farms with high rainfall and acid- or calcium-deficient soils, may have significantly higher strontium-90/calcium ratios in their diets, but the extreme variation is unlikely to exceed a factor of 5. The mean stable strontium/calcium ratio in the diet was 1,200 $\mu\text{g/g}$, about four times the corresponding ratio in milk. There appears to be a discrimination of about 4:1 against strontium in favor of calcium in uptake from food to human bone. The strontium-90/calcium (S.U.) ratio in newly laid bone is deduced to be between 1 and 2 s. U. for individuals on mixed diet. —Authors' Summary and Conclusions.

18. ČIHULA, J., ŠEVČÍK, K., & HORÁK, M. **Vylučování celkových neutrálních 17-ketosteroidů moči v pubertálních stupních (zralosti) u chlapců.** (The excretion of total neutral 17-ketosteroids in the urine of pubertal males according to age.) *Cesk. Pediat.*, 1958, 13, 308-310.

19. GUZMÁN, MIGUEL A., SCRIMSHAW, NEVIN S., & MONROE, ROBERT J. **Growth and development of Central American children. I. Growth responses of rural Guatemalan school children to daily administration of penicillin and aureomycin.** *Amer. J. clin. Nutrition*, 1958, 6, 430-438. Groups of children aged 6 to 12 years of predominant Mayan Indian origin from each of two schools in adjacent rural communities in the Guatemalan highlands received daily doses of 50 mg. of either penicillin or Aureomycin for a period of 25 months. A third group in each school received placebo. All of these school children subsisted on marginal diets low in animal protein. Age at the start of the experimental period, monthly weight and height observations, as well as a record of treatment frequency constituted the basic data. For the purposes of analysis, the over-all experimental period was subdivided into two shorter periods of approximately equal duration. Regression methods were used to estimate the rate of growth of each child, and the computed regression coefficients served as the variable for analysis. The results indicated an initial stimulatory effect of Aureomycin on the rates of growth on both weight and height. The effect on the rate of gain in weight was greater than that on the rate of gain in height, and decreased markedly with time. On the other hand, penicillin seemed to have an inhibitory effect on both rates of gain, which became insignificant with time. The treatment effects were greater in females than in males. In some cases the comparative effect of penicillin and Aureomycin changed with the sex. In general, the growth rates for period two were lower than the growth rates for period one. Additional information from an alternative analysis illustrates the necessity of correcting not only for initial age, height, and weight but also for sex differences as well as for frequency of treatment. It is also evident that the study of the behavior of multiple experimental and placebo control groups in several time periods is essential for sound conclusions. —Authors' Summary.

20. HARD, MARGARET MCGREGOR, ESSELBAUGH, NETTIE C., & DONALD, ELIZABETH A. **Nutritional status of selected adolescent children. III. Ascorbic acid nutriture assessed by serum level and subclinical symptoms in relation to daily intake.** *Amer. J. clin. Nutrition*, 1958, 6, 401-408. The ascorbic acid nutriture of 248 adolescent boys and girls born and reared in two areas of Washington (Snohomish and Yakima Counties) was assessed by five methods—dietary intake including supplementation, serum blood levels, biomicroscopic and kodachrome evaluation of subclinical deficiency manifestations, and physical examination. By the present standards the ascorbic acid food intake of all boys and of the Yakima girls was low. Mean daily intakes were 82 mg. for the boys and 69 mg. for the girls. Few (14) subjects took vitamin C supplements. The mean serum ascorbic acid values were rated "fair" to "good." The values for the Snohomish boys and girls were 0.64 ± 0.04 and 0.86 ± 0.06 mg. %, respectively, and for the Yakima boys and girls, 0.70 ± 0.06 and 0.72 ± 0.06 mg. % respectively. A significant difference existed between the sexes. The average scores for the biomicroscopic observations of the upper arm and gingival epithelial lesions indicated a "slight" deficiency of ascorbic acid. The evaluation of the kodachrome slides suggested a "fair" status of

ascorbic acid nutrition. The physical examination revealed a few subclinical manifestations. On the basis of the several criteria used, selected Washington adolescent subjects may be described as being in a fairly good state of ascorbic acid nutrition. —Authors' Summary.

21. MILLIS, J., & CHO-YOOK, T. (Univer. of Malaya) **The relation between birth weight and weight gain throughout the first year.** *Ann. hum. Genet.*, 1957, 21, 289-292. Birthweights of 47 male and 55 female infants, Southern Indians born in Singapore in low-income families, were recorded and the infants were weighed naked at 4-week intervals to 1 year of age. Mean weights at birth and 1 year in pounds were for boys 6.3 and 18.0 (SD 0.9 and 1.9) and for girls 6.4 and 16.4 (SD 0.8 and 1.8). The difference at a year is highly significant. Correlation coefficients were calculated between individual birthweights and individual incremental weight gains at each weighing, for the sexes separately, with results which fluctuated about 0 and gave totals for the year of -0.0065 for boys and $+0.2194$ for girls. From this, rate of weight gain in the first year is taken to be independent of birthweight, and it is shown that a high coefficient of correlation would be expected between birthweight and weight at any subsequent point in young infants. —I. Leitch (*Nutrition Abstr.*, 28:951).

22. NASSO, IVO, & VERGA, ANGELO. (Univer. of Milan) **Our experience of the late prognosis of prematurity.** *Ann. paediat. Fenniae*, 1957, 3, 302-315. A report of a study of 170 prematures, followed at regular intervals during the first three years of life. Birth weights varied from 900 to 2500 g. with more than two-thirds of the infants weighing less than 2000 g. Among the conclusions are these: weight and height development is "remarkably accelerated" over the normal rate; after first year prematures tend to develop like normal babies, except when birth weight is below 1500 g.; bone age does not follow CA "as bone formation may lag behind physical growth"; motor and mental development is "generally satisfactory" except for an indication of delay in walking.

23. OLIVER, WILLIAM J. (Univer. of Michigan Medical School, Ann Arbor), GRAHAM, BRUCE D., & WILSON, JAMES L. **Lack of scientific validity of body surface as basis for parenteral fluid dosage.** *J. Amer. med. Ass.*, 1958, 167, 1211-1218. The literature is reviewed to demonstrate that surface area cannot be accurately estimated by the methods most frequently employed in clinical medicine. The various physiological functions do not show a consistent correlation with surface area, nor has surface area been substantiated as the ideal unit for interpreting physiological data. The authors propose a simple rule of thumb based on weight alone for calculating fluid requirements which gives substantially the same results as more complicated systems in general use: for infants less than one year of age, 60 ± 15 ml. of water per pound; for children 1 to 5 years old, 50 ± 15 ml. per pound; for children above 5 years, about 40 ± 15 ml. per pound. —I. Altman.

24. PIKARTOVÁ, HANA. **Koží teplota u zralých a nezralých novorozenců.** (Skin temperature in mature and premature newborns.) *Česk. Pediat.*, 1958, 13, 333-338. Skin temperature was measured, along with rectal temperature in 100 newborns. Newborn skin temperature varies from 36.8 to 29.6° C. The skin on the abdomen is the warmest, followed by the interscapular region, and on the chest. The lowest temperature was on the back. Prematures investigated in air-conditioned cubicles and incubators have a higher skin temperature than mature newborns. After a feed, abdominal skin temperature falls about 0.4° C, and rectal of the order of 0.36° C, on the average. There was no significant sexual difference. Girls had a slightly higher skin temperature on the extremities and a slightly lower temperature on the trunk. There was also little difference between values in one and seven day old infants. The one day old infants had slightly higher extremity values. A review of skin temperature in the newborn, week old, semi-premature, and premature child, was presented. —English Summary.

25. PIKARTOVÁ, H. **Teplota novorozence při ochlazení.** (The temperature of newborns during cooling.) *Česk. Pediat.*, 1958, 13, 213-218. Rectal temperature and skin temperature on the abdomen and flat surfaces were measured in one and seven day old newborns with 15 minutes of swaddling, and one hour afterwards, with room temperature at 20, 22 and 24° C. 60 subjects were used in all. Rectal temperature of newborns was lower than one week old infants, and skin temperature as well, but the differences were not marked. There were no significant differences between the two groups in the reaction to cold. Rectal temperature did not change during or after cooling. Skin temperature, after an initial fall, rose above initial values, inversely related to room temperature in degree. Temperature on flat surfaces fell in relation to room temperature. The fall in skin temperature was not dependent on the weight of the infants. —English Summary.
26. POUPA, O., & FALTOVÁ, E. **Růst z nadbytku bílkovin v potravě.** (Growth on an excess of protein in the diet.) *Česk. Pediat.*, 1958, 13, 313-315. (1) The relation between protein concentration of the diet and growth is positive only in a given range of values of proteins used. From a certain limiting protein concentration in the diet this positive relation changes to a negative one. In this way the growth optimum of amino acids is determined. (2) The mechanism of this effect is not clear, but is not due to a secondary deficiency of B vitamins, and it is improbable that it has the same mechanism as pure weight reduction from protein excess in the adult. (3) Depression of growth activity with an excess of protein is associated with a lowering of differentiating ability of the CNS, which shows an analogous protein optimum as the growth itself. For this reason it is assumed that this phenomenon has biological importance. —English Summary.
27. RIMINGTON, C. (Univer. College Hospital Medical School, London) **Some aspects of haemoglobin biosynthesis and their importance to medicine.** *Brit. med. J.*, 1958, 1, 1017-1020. Experimental data are contributing slowly but steadily to knowledge concerning the biosynthesis of hemoglobin. Aspects of importance include utilization of red-cell catabolites, order of synthesis, relation of globin and heme synthesis, gene-controlled defects in globin production and biochemistry of porphyrin synthesis. —W. W. Sutow.
28. RINGEL, J., & ŠEVČÍK, K. **Oběhové hodnoty a testy v stupních zralosti.** (Circulatory values and tests in developmental age groups.) *Česk. Pediat.*, 1958, 13, 303-308.
29. SAMSDØE-JENSEN, TAGE, & KRISTENSEN, KRISTINE HAUGE. (Sundby Hospital, Copenhagen) **Passive transfer of skin sensitizing antibodies to the skin of infants and young children.** *Ann. paediat. Fenniae*, 1957, 3, 472-479. Passive transfer by the method of Prausnitz-Küstner was made into the skin of 105 children with the weights ranging from 1380 to 14980 gr. A 10% solution of a dried serum, containing grass-pollen antibodies, was used. No "poor receptors" were demonstrated. The size of the urticarial wheals was the same in girls and boys. From a statistical computation an increasing cutaneous reactivity with increasing weight was demonstrated. It is suggested that this phenomenon may be due to the gradual anatomical and physiological maturation of the skin. —Authors' Summary.
30. STRYČEK, R., HUNKA, R., & KOTAS, R. **Hladina kalorických živin v mateřském mléce v prvním týdnu laktace.** (The calorific value of mothers' milk in the first week of lactation.) *Česk. Pediat.*, 1958, 13, 596-602. The levels of lactose, protein and fat in colostrum and initial milk during the first postnatal week were determined in 45 healthy mothers. The average lactose level in colostrum is lower, protein and fat higher, than in initial milk at the end of the first postnatal week. At this latter period lactose and protein levels are quite constant, but variation in fat levels are more marked. Variability of levels in colostrum was found to be marked for three variables, greatest for protein values. These findings are discussed, with particular attention to fat and lactose. Particular attention is drawn to differences

in colostrum protein and the importance of estimating globulin, albumin and casein fractions. —English Summary.

31. SUTTON, H. ELDON, & READ, JOHN H. (Univer. of Michigan Medical School, Ann Arbor) **Abnormal amino acid metabolism in a case suggesting autism.** Amer. J. Dis. Child., 1958, **96**, 23-28. Studies with L-tryptophan-loading tests of an 18-month-old girl diagnosed as autistic suggest a decreased ability to metabolize tryptophan via the 5-hydroxyindole pathway to 5-hydroxyindoleacetic acid and also to indolelactic and indoleacetic acids. This is not believed to result from a primary enzymatic block. It is suggested that the mental aberration is a result of an altered ability to maintain normal brain serotonin levels. Loading normal children with L-tryptophan produced increases in urinary 5-hydroxyindoleacetic acid levels, in contrast to other reports that hydroxylation of tryptophan is maximal with normal levels of tryptophan. These results may be associated with the young age of our subjects. —Authors' Summary.

32. TUCKER, B. E., & BENARON, H. B. W. (Wesley Memorial Hospital, Chicago, Ill.) **The postmature baby.** Amer. J. Obstet. Gynecol., 1957, **73**, 1314-1320. In 4106 first babies the incidence of postmaturity, defined as gestational age 43 weeks or over, was 6.6%. Of the babies studied 3274 were Negro with incidence 5.9% and 832 white with incidence 9.3%. There was no significant difference in perinatal mortality rate between postmature and mature babies. A study of the records of 6 of the 7 babies lost in the postmature group showed that death could have been due to difficult labour and delivery, toxæmia or infection. Two small babies, 2200 g. and 2500 g., who died during labour at gestation ages of 37 and 47 weeks showed placental changes attributable to aging. Postmature babies tended to be larger than mature. The percentage of large babies was significantly higher and of small babies significantly lower in both white and Negro postmature groups. A study of birthweight and gestational age indicated that gestational age was a crude index of foetal development. —F. C. Aitken (Nutrition Abstr., 28:966).

33. VAHLQUIST, BO (Univer. of Uppsala, Sweden), MELLANDER, OLOF, & WICKLUND, HARRIET. **Breast milk and cow's milk in infant feeding. Skeletal development during the first year of life.** Ann. paediat. Fenniae, 1957, **3**, 511-520. As part of a comprehensive investigation into the relationship between type of feeding and body health in infancy, observations were made concerning the influence of homologous and heterologous milk diets upon skeletal development and blood chemistry. The series was divided into four groups with respect to the period of breast feeding. Infants weaned at a very early stage show significantly rapid height-gain (difference 1.1 cm. at 7½ months of age) and significantly earlier development of centres of ossification than those weaned late (difference 0.95 centres at 7½ months). The serum phosphorous and serum alkaline phosphatase are significantly lower among the infants weaned late, compared with all other groups whereas the serum calcium is the same in all groups. —Authors' Summary.

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34. ALEXANDER, RICHARD M. (Great Neck, N.Y.), & MANHEIM, SYLVAN D. **Anal fissures in infants and children.** Amer. J. Dis. Child., 1958, **96**, 29-31. A statistical study of 500 consecutive pediatric proctologic patients is reported. 49%, or 206 patients, were seen because of anal fissure. Pathogenesis is discussed from anatomic, physiologic, and psychogenic points of view. Conservative management healed fissures in 201 patients. Surgery was necessary in only five patients. —Authors' Summary.

35. BĀRDOŠ, AUGUSTIN. **Vplyv profylaxie kongenitálneho luesu penicilínom na zníženie perinatálnej úmrtnosti.** (The influence of prophylaxis of congenital lues

with penicillin in lowering perinatal mortality.) *Cesk. Pediatri.*, 1958, **13**, 528-531. An analysis of the problem of congenital lues in Slovakia shows several stages. The principles of penicillin prophylaxis are presented. With raised prenatal care and with measures against venereal disease, and with the introduction of penicillin in the treatment of luetic pregnant women, perinatal mortality has been lowered from 12.6% in 1947-1948 to 2.2% in 1950-1954, and in the last three years it has been 0%. Luetic mothers treated with penicillin during pregnancy produced live children in 97.73% of cases. Several ways of improving luetic prophylaxis are presented in discussion. —English Summary.

36. BARRETT, CLARENCE D., Jr. (Detroit Department of Health, Mich.), **TIMM, EUGENE A., MOLNER, JOSEPH G., WILNER, BURTON I., ANDERSON, CHARLES P., CARNES, HARRY E., & McLEAN, I. WILLIAM, Jr.** **Multiple antigens for immunization against poliomyelitis, diphtheria, pertussis, and tetanus. I. Response of infants and young children to primary immunization: Preliminary report.** *J. Amer. med. Ass.*, 1958, **167**, 1103-1107. A three-dose schedule of Quadrigen was completed on 224 children in the child health clinics of the Detroit Department of Health. The children ranged in age from 2½ months to 5 years. Good antibody response was obtained to all four antigen components. A fourth dose was found to be desirable for children less than 4 months of age to enhance poliovirus antibody levels. —I. Altman.

37. BRUNET, J. (Hopital St. Sacrement, Quebec, Canada), **De MOWBRAY, R. R., & BISHOP, P. M. F.** **Management of the undescended testis.** *Brit. med. J.*, 1958, **1**, 1367-1371. A follow-up study of 209 patients with undescended testes is presented. The importance of assessing the initial position of the testis in regard to the choice of treatment is stressed. Hormonal treatment with chorionic gonadotrophin is successful in bringing down more than 60% of a selected group of undescended testes. There is no evidence that chorionic gonadotrophin in moderate dosage can cause permanent damage to the seminiferous tubules. Orchidopexy is the treatment of choice when there is a mechanical defect or when chorionic gonadotrophin fails. Hormonal and surgical treatment should take place about the age of 9 or 10. Assessment of fertility in 24 patients with bilateral cryptorchidism reveals that 70% of them have a normal degree of fertility 10 years after treatment. —Authors' Summary and Conclusions.

38. CHURCHILL, JOHN ALVORD. (Henry Ford Hospital, Detroit, Mich.) **The relationship of Little's disease to premature birth.** *Amer. J. Dis. Child.*, 1958, **96**, 32-39. A study of 76 patients with Little's disease revealed that they could be segregated into two groups having relatively distinct clinical characteristics. One group, called simple spastic diplegia, was found to be composed of persons who, for the most part, had had low birth weights. In sharp contrast, low birth weight was not a prominent feature of the other group, which was called complex diplegia. The significance of low birth weight (prematurity) in the pathogenesis of simple spastic diplegia is discussed. —Author's Summary.

39. COOKE, ROBERT E. (Johns Hopkins Univer. School of Medicine, Baltimore, Md.) **Current status of therapy in infantile diarrhea.** *J. Amer. med. Ass.*, 1958, **167**, 1243-1247. "This paper is a brief review of the therapeutic problems of diarrhea in infancy, especially acute diarrhea. Practical aspects of treatment are presented rather than theoretical principles." —I. Altman.

40. COOPER, KENNETH H. (Univer. of Oklahoma School of Medicine, Oklahoma City), & **CRANNY, ROBERT L.** **The determination of genetic sex in children.** *Amer. J. Dis. Child.*, 1958, **96**, 40-42. The morphology of the polymorphonuclear leukocytes of 65 patients of both sexes, ranging in age from 4 weeks to 75 years, was studied in a blind fashion to evaluate critically this method of genetic sex determination. Five errors were made in the entire series, giving an over-all percentage of correct diagnosis of 92.3%. All of the errors in diagnosis were made during the first half of the study. Three of the errors were believed to have been caused by

poor technique in preparing slides, and, since later in the study no attempt was made to read poorly prepared films, it is probable that these three errors could have been avoided. The results of this study indicate that, under the proper circumstances, the morphology of the polymorphonuclear leukocyte is a reliable indicator of genetic sex. —Authors' Summary.

41. DAWSON, JEAN P. (Tufts Medical School, Boston, Mass.), & DESFORGES, JANE F. **Dietary and storage factors in iron-deficiency anemia of infancy.** *Amer. J. Dis. Child.*, 1958, **96**, 169-178. Of the factors investigated the most frequently found was an abnormal diet. In those cases in which only one cause was found the large majority were due to abnormal diet. Low birth weight was much less frequently the single factor, and low maternal iron stores never acted alone, although in a larger series the latter factor might have been implicated as operating singly. Abnormal weight increment in full-term infants was also only rarely encountered as a cause of iron-deficiency anemia. It appears, therefore, that, given a normal diet, an infant overcomes his relative neonatal iron deficit. However, normal iron stores at birth are not adequate to prevent the development of iron-deficiency anemia in the presence of an abnormal diet. —Authors' Summary.

42. FLAŠAROVÁ, BOHUMÍRA. **Hyalinní membrány u novorozenců.** (Hyaline membrane disease in the newborn.) *Česk. Pediat.*, 1958, **13**, 419-421. We have followed up the occurrence of hyaline membrane disease in 1952-1956 among 8944 births, of which only 49 showed the syndrome. This plays a role amounting to 36% in newborn mortality figures. In agreement with the literature, most of the deaths occur in the first day of life. Most of the cases are premature, between 1-2 kg. body weight. The high mortality is produced on the one hand by the difficult diagnosis, and by the lack of therapy. There is no known method of prevention, aside from preventing prematurity. —English Summary.

43. GARSIDE, R. F. (Univer. of Durham, England) **Table for ascertaining whether differences between percentages are statistically significant.** *Brit. med. J.*, 1958, **1**, 1459-1461. Based on suggestion of Smyth and Bainbride (*Brit. med. J.*, 1957, **2**, 619), a table has been constructed to determine the statistical significance of the difference between the percentage incidences of any two factors concerning a group of patients. —W. W. Sutow.

44. GIBBS, ERNA L. (912 S. Wood St., Chicago, Ill.), & GIBBS, FREDERIC A. **Electroencephalographic study of persons before and after poliomyelitis vaccination.** *J. Amer. med. Ass.*, 1958, **167**, 929-931. To answer the question, "Does Salk vaccine, when administered as part of a program of mass immunization against poliomyelitis, cause brain damage in some persons?" electroencephalograms were obtained on 569 persons, mostly children, after the first and second inoculations and 852 persons after the third inoculation. It was found that Salk vaccine produced no electroencephalographic abnormalities in initially normal people. Electroencephalographic study of another 106 patients with brain damage and epilepsy indicated that such patients could safely be given the vaccine. —I. Altman.

45. GORDON, ARCHER S. (Presbyterian—St. Luke's Hospital, Chicago, Ill.), FRYE, CHARLES W., GITTELSON, LLOYD, SADOVE, MAX S., & BEATTIE, EDWARD J., Jr. **Mouth-to-mouth versus manual artificial respiration for children and adults.** *J. Amer. med. Ass.*, 1958, **167**, 320-328. Direct mouth-to-mouth resuscitation was compared to manual push-pull techniques in 14 normal infants and children admitted to the hospital for elective circumcision under general anesthesia. An endotracheal tube was used with five and a mouthpiece and noseclip with nine of these children. Both approaches were found to provide maximal pulmonary ventilation and to be "unequivocally superior to all manual resuscitation methods in ensuring adequacy of pulmonary ventilation." Specific maneuvers for successful technique are described; the most important single factor is proper extension of the neck and elevation of the jaw. —I. Altman.

46. HENDREN, W. HARDY, III (Mass. General Hospital, Boston), & HAGGERTY, ROBERT J. **Staphylococcal pneumonia in infancy and childhood: Analyses of 75 cases.** *J. Amer. med. Ass.*, 1958, 168, 6-16. While the incidence of pulmonary infections requiring hospitalization has been decreasing, the incidence of primary staphylococcal pneumonia seems to be on the increase. A detailed analysis is presented of 75 cases seen at the Children's Medical Center in Boston over a period of about 6½ years. The child with this entity often requires the services of both physician and surgeon. Males outnumbered females by a 2:1 ratio. Although principally a disease of infants, cases occasionally occurred in older children. A significant number of patients had concomitant cutaneous staphylococcal infections. The criteria for diagnosis are: (a) a positive culture for hemolytic staphylococcus pyogenes var. aureus from empyema fluid, or from lung parenchyma at autopsy, together with compatible clinical and radiologic findings; or (b) the roentgenographic findings of cystic, radiolucent areas in the lungs of an infant with active pneumonia. Treatment of these patients includes vigorous supportive care, blood transfusions, prolonged treatment with specific antibiotics, and, frequently, closed-tube thoracotomy drainage. —I. Altman.

47. HILL, A. B. (London School of Hygiene & Tropical Medicine), DOLL, RICHARD, GALLOWAY, T. McL., & HUGHES, J. P. **Virus diseases in pregnancy and congenital defects.** *Brit. J. prev. soc. Med.*, 1958, 12, 1-7. By a special recording system the occurrence of certain infectious diseases was noted in women whose illness, medically observed and diagnosed, fell during, or shortly before, a pregnancy. Information was subsequently sought regarding the infants born to them (live or still but excluding abortions or miscarriages), shortly after birth and again at an age of not less than 3 years. Data were thus acquired on 44 cases of German measles (rubella), 35 of mumps (epidemic parotitis), 30 of chicken pox (varicella), and 10 of measles (morbili). There was no evidence that mumps or measles had had any deleterious effect upon the foetus. With chicken pox there was also no evidence of the production of congenital defects, but the proportion of liveborn children with low birth weights was relatively high (though the difference was not statistically significant). With rubella occurring early in pregnancy, the well-known congenital defects of heart, vision, and hearing were observed. By the addition of these present cases to similar published records, some estimates are reached of the risks involved with rubella in different stages of pregnancy. An incidence of six affected children out of 12 with rubella in the mother in the first month of pregnancy (50%) declines to five out of 20 for the second month (25%) and to three out of 18 for the third month (17%). With 54 women in whom the attack of rubella occurred in the second and third trimesters, 51 infants were unaffected, and only one of the three affected cases seemed likely to be attributable to the preceding rubella. Other published data have shown both considerably higher and considerably lower incidence rates of congenital defects following rubella in early pregnancy. It may be therefore that the risk varies in space or time. —Authors' Summary.

48. KESSLER, ALTHEA D., & SCOTT, ROLAND B. (Howard Univer. College of Medicine, Washington, D.C.) **Staphylococcal infections in young infants.** *Amer. J. Dis. Child.*, 1958, 96, 294-298. An outbreak of pyogenic infections involving 20 infants in a newborn nursery is described. The infecting organism was *Staphylococcus pyogenes* var. aureus, coagulase-positive. It was resistant to the commonly used antibiotics except novobiocin, erythromycin, chloramphenicol, and oleandomycin. Bacteriophage typing revealed two predominant strains, 52/42B/80/81 and 52/52A/80. 16% of the nursery personnel were carriers of the epidemic strains, as were 100% of the premature infants. Novobiocin given to the infant carriers did not eliminate the carrier state or prevent infection. Erythromycin eliminated the carrier state only while it was being administered to the infants. All of the infected infants recovered. . . . From Authors' Summary.

49. KIESEWETTER, WILLIAM B. (Univer. of Pittsburgh, Pa.) **Early surgical correction of inguinal hernias in infancy and childhood.** *Amer. J. Dis. Child.*, 1958,

96, 326-367. A group of 453 inguinal herniorrhaphies in infancy and childhood is reviewed from an embryologic, clinical, and therapeutic standpoint. It is concluded that, given safe anesthesia, experienced surgery, and good nursing care, a child should have his hernia repaired surgically at the time of diagnosis, if the child is a month of age or older. Results in this series indicate that early surgical correction has been both safe and effective. —Author's Summary and Conclusions.

50. KREMER, M. (Middlesex Hospital, London) **Sitting, standing and walking.** Brit. med. J., 1958, 2, 63-68; 121-126. Various disorders of sitting, standing and walking functions are discussed. Case presentations are used to illustrate trunk apraxia, "body image," drop attack, syncope and epilepsy, and fatigue. Such studies of the dissolution of processes of sitting, standing and walking are expected to elucidate the means by which desired posture is attained and maintained and the means by which muscular activity is coordinated and fatigue avoided. —W. W. Sutow.

51. LOWREY, GEORGE H. (Univer. Hospital, Ann Arbor, Mich.), ASTER, RICHARD H., CARR, EDWARD A., RAMON, GOVIND, BEIERWALTES, WILLIAM H., & SPAFFORD, NORMA R. **Early diagnostic criteria of congenital hypothyroidism.** Amer. J. Dis. Child., 1958, 96, 131-143. "The findings in a group of 49 cretins . . . have been presented in an attempt to find as many criteria as possible that will lead to the earliest diagnosis. . . . Diagnosis of cretinism usually can be made by 3 months and certainly before 6 months of age, with the aid of careful history, adequate physical examination, and a very few laboratory procedures."

52. MCKENZIE, J. (Univer. of Aberdeen, Scotland) **Aetiology and treatment of congenital deaf-mutism.** Brit. med. J., 1958, 2, 201-203. Although no morphologic evidence of middle-ear defect was demonstrable, the possibility that congenital deaf-mutism may be of middle-ear origin has been suggested on the basis of audiometric tests on five children. Occasionally, other children with obvious maldevelopment of first visceral arch derivatives also had been deaf-mutes, although external ear and auditory meatus were normal. Consequent disuse atrophy of the cochlea following interruption of transmission of vibration to the inner ear has been postulated as the basic pathologic process. Significance of this new concept in relation to early diagnosis and therapy is stressed. —W. W. Sutow.

53. MARTINS DA SILVA, MARIO (Univer. of Minnesota Medical School, Minneapolis), PREM, KONALD A., JOHNSON, EUGENE A., MCKELVEY, JOHN L., & SYVERTON, JEROME T. **Response of pregnant women and their infants to poliomyelitis vaccine: Distribution of poliovirus antibody in pregnant women before and after vaccination—transfer, persistence, and induction of antibodies in infants.** J. Amer. med. Ass., 1958, 168, 1-5. Purpose of the study was to determine the incidence by titer of natural occurring poliovirus antibodies in pregnant women, to compare the antibody response of such women to Salk vaccine, to measure the transfer of maternal antibodies to infants, and to evaluate the response of infants to vaccine. Serum specimens of 186 pregnant women, ranging from 17 to 42 years in age, were successfully assayed. "Before vaccination, 35% showed antibodies to all three recognized poliovirus immunotypes and 11% showed no detectable antibody to any type. After two injections of vaccine, 82% of 133 pregnant women showed measurable antibody to all three poliovirus types. . . . Infants born to tested mothers (a) exhibited antibody levels essentially the same as the mother's, according to assay of cord and maternal blood at delivery; (b) eliminated half of the passively transferred antibody to poliovirus types 1, 2, or 3 in about five weeks, without respect to the neonatal antibody level indicated by cord blood titer; and (c) retained passively acquired antibody in measurable quantity for a postnatal period related to the level of acquired antibody at birth. After two injections of poliomyelitis vaccine, 32.5% of 77 infants one year of age or less had measurable antibody to all three poliovirus types. Infant response to the Salk poliomyelitis vaccine appeared to be inferior for all three virus types to that of the group of pregnant women." —I. Altman.

54. MILLER, JAMES A., Jr. (Wenner-Gren Cardiovascular Res. Lab., Stockholm), & MARINI, ANTONIO. **Cardiac activity in an apneic five hundred eighty gram human fetus.** J. Amer. med. Ass., 1958, **167**, 976-982. Cardiac activity was maintained for 21 hours in an apneic 580-Gm. (1.25 lb.) female fetus. During this period, the fetus was perfused with 300 ml. of oxygenated blood and kept at deep colonic temperatures between 22 C and 0.1 C. For more than 17 hours the temperature was below 15 C and for nearly 2½ hours, it was below 1 C. On five occasions the temperature was reduced to 4 C or less, and during the last two cooling periods it reached 0.1 C. Electrocardiograms showed that heart activity did not cease until the temperature fell to 0.1 C and that it recommenced spontaneously on rewarming. A comparison of the records at 11 C showed that after the periods of deepest hypothermia there was an increase in the height (increase in voltage) and a narrowing (increase in rate of ventricular depolarization) of the QRS complex. This was most striking after the first cooling period, when the QRS complex reached a maximum of 1 mv. However, even after the fifth period 0.5 mv. was recorded. At the beginning of the study the voltage was 0.01 mv. at 25 C. This appears to have established a record both for the lowest temperature during which cardiac activity has been recorded and the lowest temperature from which spontaneous recovery of heart beat has been observed. Also established is a record for the longest time during which heart beat has been reported in a perfused human fetus. This shows that the heart of the premature infant will tolerate far lower temperatures than previously thought possible. —Authors' Summary.

55. MINTZ, A. A. (Baylor Univer. College of Medicine, Houston, Texas), BASHAW, C., & HILL, L. L. **Clinical study of oral phenoxymethyl penicillin and parenteral procaine penicillin G.** Amer. J. Dis. Child., 1958, **96**, 179-183. A comparative clinical study of phenoxymethyl penicillin (penicillin V) given orally and parenterally administered procaine penicillin G was undertaken in 2132 children, with the following results. Of the total group, 1266 patients (59%) returned for follow-up. Of children with infections seen in our clinic, initial cultures revealed only 40% with an organism which might be influenced by penicillin. When penicillin was administered, nearly all of these children were well within five days. Those patients harboring β -hemolytic streptococci achieved negative cultures in about the same period, regardless of the method of administration of penicillin. There were no significant differences in the number of side-reactions in the two groups. —Authors' Summary.

56. MURAKAMI, UJIHIRO, & KAMEYAMA, YOSHIRO. (Nagoya Univer., Japan) **Effects of low-dose x-radiation on the mouse embryo.** Amer. J. Dis. Child., 1958, **96**, 272-277. Mice were subjected on the eighth day of pregnancy to whole-body irradiation of 50 and 25 r. The embryos were examined on the 13th day of pregnancy either grossly or in sections. Abnormal embryos constituted 23.1% of the group treated with 50 r and 13% of the group treated with 25 r. By contrast, abnormal embryos comprised only 4.8% of the embryos in control groups. Dead embryos occurred at approximately the same rates in both treated and control groups. . . . —From Authors' Summary and Conclusions.

57. RATNER, BRET, & COLLINS-WILLIAMS, CECIL. (Hospital for Sick Children, Toronto, Canada) **Analysis of protein skin reactivity in infantile and childhood eczema.** Amer. J. Dis. Child., 1958, **96**, 184-190. A high incidence of positive skin reactions was found in infants and children with eczema. The final interpretation of food sensitivity must rest on clinical corroboration for a residual skin reaction, for food sensitivity may remain for years after clinical tolerance has been established. Although foods play an important role, few patients react to foods alone, but rather they react to foods in combination with inhalants and/or pollens. Compared from the standpoint of age, reactions to foods and inhalants were found in twice as many infants as children, whereas twice as many children reacted to combinations of foods, inhalants, and pollens. The intradermal test with inhalants and pollens is essential in young children, because they usually have low-grade sensitivities to these substances

and the scratch test often does not reveal their presence. . . . —From Authors' Summary and Conclusions.

58. RECORD, R. G. (Univer. of Birmingham, England), & EDWARD, J. H. **Environmental influences related to the aetiology of congenital dislocation of the hip.** *Brit. J. prev. soc. Med.*, 1958, 12, 8-22. An attempt was made to ascertain all children who were born in the period 1942-52 and were treated in Birmingham hospitals for congenital dislocation of the hip. The incidence was 0.65 per 1000 live births. Further information on 167 patients was obtained by interviewing the mothers. The data were consistent with previous reports relating to the sex ratio (15% males) and the side more commonly affected (64% of affected hips were left-sided). The frequencies of associated defects (16%), and of breech delivery (17%) were rather higher than in most previous reports. The mean birth weight was about $\frac{1}{2}$ lb. below the expected value. This could not be explained by any obvious decrease in the duration of gestation. The incidence among first-born was about twice that in second and third children. There appeared to be some association with increasing maternal age, and there was some evidence that the fertility of mothers was slightly impaired. The incidence among children born in the winter was double that of children born in the summer. Examination of annual variations suggested that incidence was related to air temperature. The risk of the condition occurring in a subsequent child appears to be about 5%, but is dependent on the sex of the child and possibly on the season of birth. Current hypotheses are considered in relation to these findings. It is suggested that the stability of the hip joint is determined by multifactorial inheritance and by a number of factors in the pre-natal and post-natal environment. The most important of these are considered to be those which influence the attitude and activity of the foetus and of the infant. —Authors' Summary.

59. SHAW, MANLEY B., SUNADA, KAYO, & HOPKEY, IONE A. (Boise, Idaho) **Clinical study of four hundred twenty-five Idaho poliomyelitis vaccine recipients in 1955.** *Amer. J. Dis. Child.*, 1958, 96, 58-63. A clinical study of 425 children who received poliomyelitis vaccine containing live poliomyelitis virus in April, 1955, in Idaho is presented. A total of 139 (32.7%) of these children gave a history of illness compatible with abortive poliomyelitis within 3 to 25 days after vaccination. A statistically higher percentage of children who reported symptoms had demonstrable muscle weaknesses (30.9%) as compared with those who had no symptoms (16.7%). —Authors' Summary.

60. SILVER, HENRY K. (Univer. of Colorado School of Medicine, Denver) **Butanol-extractable iodine values in the offspring of diabetic women.** *Amer. J. Dis. Child.*, 1958, 96, 144-147. Abnormally low butanol-extractable iodine (BEI) levels were found at five days of age in the serum of five of seven infants born of women with diabetes mellitus. Possible mechanisms producing these findings are discussed. —Author's Summary.

61. SRSEŇ, Š. **Prehľad klinickej symptomatológie poškodenia CNS u novorodenca.** (A review of the clinical symptomatology of CNS damage in the newborn.) *Cesk. Pediat.*, 1958, 13, 520-528. The author has followed up 392 newborns with CNS damage. Of these 131 died while still on the wards, and in 73 of these latter histological changes of CNS damage were found either per se, or in combination with other findings, mainly pulmonary. Analysis of the clinical symptomatology of the newborn with intracranial haemorrhage, circulatory disturbances with brain oedema, hypoxic encephalopathy, congenital hydrocephalus and kernicterus has been given. In conclusion the difficulties of differential diagnosis of individual pathological states of the newborn are discussed. —English Summary.

62. SUNADA, KAYO (Univer. of Utah Medical School, Salt Lake City), GERLOFF, ROBERT K., BROCK, DARRELL, HOPKEY, IONE, EKLUND, CARL M., & KLOTZ, ALDON W. **Observations on the potency and safety of poliomyelitis vaccine (Salk type) currently used.** *Amer. J. Dis. Child.*, 1958, 96, 125-130. Three

inoculations of poliomyelitis vaccine, produced by one manufacturer, were given according to the schedule recommended by Salk. Use of these vaccine lots was not accompanied by any illness suggestive of poliomyelitis in either vaccinated children or their contacts. Direct tests of one of the vaccine lots by an independent investigator gave no evidence of live virus. . . . Evidence is presented which indicates that the antigenicity of poliomyelitis vaccine should be measured in children who do not possess antibody resulting from natural exposure to poliovirus. —Authors' Summary.

63. SUTOW, WATARU W. (Univer. of Texas M.D. Anderson Hospital, Houston) **Prognosis in neuroblastoma of childhood.** Amer. J. Dis. Child., 1958, 96, 299-305. Clinical summaries on 15 children with neuroblastoma are presented. From a study of pooled data on 496 cases of neuroblastoma the relationship of various factors (age, sex, site of primary tumor, metastases, cytologic differentiation, and therapy) to prognosis for long-term survival is evaluated. Age over 2 years, presence of skeletal metastases, and cytologic undifferentiation were associated with poor survival rates. No differences in therapeutic effectiveness among radiation alone, surgery alone, and combined surgery plus radiation were noted. —Author's Summary.

64. TJUTCEV, NIKITA. **Meranie krvného tlaku u detí metódou flush (návalovou).** (Measurement of blood pressure in children by the flush method.) Cesk. Pediat., 1958, 13, 688-693. a. The flush method of B.P. measurement in children has been described. b. 150 healthy children in the age group 3 to 36 months have been measured, with comparison of flush, auscultation and palpation methods. c. The advantages and disadvantages of the method have been discussed. d. The suggested method gives a reliable estimate of the height of systolic pressure in children, with a deviation of —4 mm Hg as opposed to the other methods. —English Summary.

65. VERNIER, ROBERT L. (American Heart Ass., Minneapolis, Minn.), FARQUHAR, MARILYN G., BRUNSON, JOEL G., & GOOD, ROBERT A. **Chronic renal disease in children.** Amer. J. Dis. Child., 1958, 96, 306-343. An application of renal biopsy to the study of diffuse renal vascular disease in 58 children is presented. Needle biopsy of the kidney was found to be a safe, relatively atraumatic procedure in children, worthy of extensive use as an investigative technique. . . . —From Authors' Summary.

66. VIGNEC, ALFRED J. (New York Foundling Hospital, New York City), & GASPARIK, MARY. **Antipyretic effectiveness of salicylamide and acetylsalicylic acid in infants: A comparative study.** J. Amer. med. Ass., 1958, 167, 1821-1826. The course of fever was followed in a study of 512 pediatric patients whose initial temperatures were over 38.3 C and whose physical findings justified an initial trial of antipyretic measures alone. The patients were treated on an alternating plan with either aspirin or salicylamide, for the purpose of comparing the effectiveness of the two drugs. The salicylamide sufficed in 110 patients, and only 39% of the salicylamide group required eventual treatment with antibiotics. The aspirin sufficed in 117 patients, and only 41% of the aspirin group ultimately needed antibiotics. The difference was not significant. Similar analyses of other quantitative aspects of the treatment revealed no significant differences in effectiveness between the two drugs. In ease of administration, acceptability to infants, and control of dosage, however, the salicylamide suspension had advantages over the form of aspirin used in this study. —Journal Summary.

67. WALCHER, DWAIN N., & ROSS, ALEXANDER T. (Indiana Univer. Medical Center, Indianapolis) **Acute cerebellar ataxia of undetermined origin in childhood.** Amer. J. Dis. Child., 1958, 96, 278-283. 20 cases of acute cerebellar ataxia in children, unassociated with any definite etiology, are presented. The condition is an entity characterized by the abrupt onset, with or without prodromata, of ataxia affecting mainly the trunk and legs and in some instances the arms; by minimal systemic reactions; by inconstant changes in the cerebrospinal fluid, and by practically invariable recovery within days or weeks. Children under four years of age

are most frequently affected. Residua rarely occur. Occasionally a child will have more than one episode of ataxia. The etiology is undetermined but is presumably a viral infection. The most important conditions in differential diagnosis are posterior fossa tumor, acute labyrinthitis, encephalitis, drug intoxication, and hysteria. The differential features of each are discussed. —Authors' Summary and Conclusions.

PSYCHOLOGY

68. ALBRIGHT, ROBERT W. (Arizona State College, Tempe), & ALBRIGHT, JOY BUCK. **Application of descriptive linguistics to child language.** *J. Speech Hearing Res.*, 1958, 1, 257-261. The techniques of descriptive linguistics need to be adapted to particular problems when used in the analysis of children language. Tape-recordings of several hours of a child's informal discourse probably furnish the most adequate samples. The authors suggest the use of the word *infanteme* for the phonemic units of infant language. It is important to avoid mistaking variant forms for essential units. At any moment in a given child's language development this language may be treated as a self-contained system. —M. F. Palmer.

69. BALDWIN, ALFRED L., & LEVIN, HARRY. (Cornell Univer., Ithaca, New York) **Effects of public and private success or failure on children's repetitive motor behavior.** *Child Developm.*, 1958, 29, 363-372. A report of two studies on the "effects either of audiences or audiences in combination with success and failure on children's performances in simple visuomotor tasks. The conclusion which appears warranted is that success and failure have appreciable effects on such behavior, but whether the performance is public or private does not. . . . Success reduces output and leads to a more accurate performance; failure has the opposite effect. This finding appears especially trustworthy and general since it holds through several types of tasks, several experimental settings, and various groups of subjects."

70. BELL, RICHARD Q. (National Inst. of Mental Health, Bethesda, Md.) **Retrospective attitude studies of parent-child relations.** *Child Developm.*, 1958, 29, 323-338. This paper reviews problems of method emanating from current use of attitude questionnaires in a rapidly developing field of investigation typically involving testing for attitude differences between parents of children showing different kinds of behavior. The retrospective design offers a means of generating new hypotheses and carrying out preliminary tests prior to long-term studies. The design provides equivocal data on developmental hypotheses due to the fact that parental attitudes as manifest may be subject to social context factors such as parental needs for self-justification, may have changed over time, may have behavioral impact on different children in quite different ways, and may be linked to actual behavior in very complex fashion. The paper discusses ways of handling these problems by refinements in the retrospective design itself. Special attention is given to certain technical areas in attitude measurement which are relevant to this special field of testing. These areas include response sets, social desirability in items, and the use of projective items. —Author's Summary.

71. BERGSTEN, JANE WILLIAMS. (Univer. of Michigan, Ann Arbor) **A nationwide sample of girls from school lists.** *J. exp. Educ.*, 1958, 26, 196-208. This paper describes the procedures used in selecting a nationwide sample of girls from school lists. The population to be covered was all girls in the United States in school grades 6 through 12. Because of the nature of the study, it was desirable to exclude from our population all girls attending special schools such as schools for mentally or physically handicapped or correctional institutions; therefore, girls attending these types of schools were not included in the sample. A sample of about 1800 girls was desired, and each girl in the defined population was to have an equal chance of being included in the sample. This is a probability sample which permits us to generalize our findings with statistical validity to all girls in the defined population. In drawing

the sample a technique known as multistage probability sampling was used. First, a sample of primary sampling areas was selected. Each primary sampling area consisted of a county or group of counties. Then, within each selected primary sampling area, a list of all schools in the area was obtained; from these lists the sample of schools was selected. Within each selected school, a list of all classes in grades 6 through 12 was obtained, and from these lists a selection of classes was made. Within each selected class a list of all girls in the class was obtained, and from these lists, girls to be interviewed for the study were selected. In selecting a sample, it is desirable to balance two conflicting factors, economy and precision. The more wide-spread the sample, the greater the precision but also the greater the cost. Conversely, the more highly clustered the sample, the less the precision but the smaller the cost. In designing a sample, the aim is to obtain the most precision for the least amount of money. Keeping this aim in mind, it was decided to select the sample in such a way that it would yield on the average about three or four schools per primary sampling area, about two classes per school and about four girls per class. The interviewing thus would be concentrated in several spots in a primary sampling area, which would keep the cost low and yet would be spread over several different neighborhoods and grades, thus keeping precision high. —Author's Introduction.

72. BIJOU, SIDNEY W. (Univer. of Washington, Seattle) **A child study laboratory on wheels.** *Child Developm.*, 1958, 29, 425-427. The advantages of a mobile laboratory for experimental studies with children are discussed in this article. The furnishings and equipment and the typical procedure used in operating the trailer-laboratory at the University of Washington are described. A photograph of the exterior of the trailer and a diagram of the floor plan are included. —Author's Abstract.

73. BIJOU, SIDNEY W. (Univer. of Washington, Seattle) **Operant extinction after fixed-interval schedules with young children.** *J. exp. anal. Behav.*, 1958, 1, 25-29. "Behavior during extinction was observed in four youngsters following training on fixed-interval schedules of reinforcement of 20, 30, and 60 seconds."

74. BULL, K. R. (Univer. of Hull) **An investigation into the relationship between physique, motor capacity and certain temperamental traits.** *Brit. J. educ. Psychol.*, 1958, 28, 149-154. The aim of the investigation was to consider relationships between assessments of physique, general-motor capacity and a test of temperament. The study was undertaken with boys in the first three years of secondary modern schools and gave an opportunity to examine the suitability of the Iowa-Brace test for use with British children. Results indicate that there is some relationship between aspects of motor capacity and surgency of temperament. —From Author's Summary.

75. BURKE, C. J., & ESTES, W. K. **A component model for stimulus variables in discrimination learning.** *Psychometrika*, 1957, 22, 133-146. A general function is derived describing the conditioning of a single stimulus component in a discriminative situation. This function, together with the combinatorial rules of statistical learning theory generates empirically testable formulas for learning of classical two-alternative discriminations, probabilistic discriminations, and discriminations based on the outcomes of preceding trials in partial reinforcement experiments. —Authors' Abstract.

76. CARTER, EUNICE T. (Duval County Schools, Jacksonville, Florida), & BUCK, MCKENZIE. **Prognostic testing for functional articulation disorders among children in the first grade.** *J. Speech Hearing Disorders*, 1958, 23, 124-133. 175 first grade children with functional defective articulation divided into two groups with 83 children in control group who received two 30-minute speech therapy periods weekly for 9-month school year. Three tests using same consonants were given consisting of a spontaneous test, imitation test and a nonsense-syllable test. Those who made errors in spontaneous tests were given tests 2 and 3. At close of school term spontaneous test given again. Difference between tests may be utilized as prognosis

of correction without speech therapy. Speech therapy was shown to be of real benefit to first grade children. Speech therapists should have smaller speech loads enabling them to devote more time to individual sessions for severe cases. —M. F. Palmer.

77. CARTWRIGHT, DESMOND S. **A computational procedure for tau correlation.** *Psychometrika*, 1957, 22, 97-104. The tau coefficient is defined, and a computational procedure for tied ranks is described. The procedure maintains continuous computational checks, saves labor, and particularly facilitates the use of tau with large samples. It is also shown how tau correlation may be applied to Q-sorts with any shape of forced distribution or with unforced distributions. —Author's Abstract.

78. CASSEL, ROBERT H. (Northwestern Univer., Evanston, Ill.) **Serial verbal learning and retroactive inhibition in aments and children.** *J. clin. Psychol.*, 1957, 13, 369-372. The performance of three groups of subjects equated for MA, normal children and familial and non-familial aments were compared on various serial learning tasks. On two preliminary lists, used to give the subject an understanding of the task, the normals learned significantly faster than the aments. On learning and relearning an experimental list and on learning an interpolated list there were no significant group differences. In addition all groups evidenced an equal amount of RI (retroactive inhibition). Thus it seems possible to conclude that once adjusted to the task, aments did as well as normal children and that with MA held constant, little or no difference in learning may be found between normal and ament subjects. —Author's Summary.

79. CATTELL, RAYMOND B. **Formulae and table for obtaining validities and reliabilities of extended factor scales.** *Educ. psychol. Measmt*, 1957, 17, 491-498. Expected reliabilities and validities for tests increased from 2 to 48 times in length are given for a likely range of observed reliabilities and validities. —S. G. Vandenberg.

80. CATTELL, R. B. (Univer. of Illinois, Urbana), & COAN, R. W. **Child personality structure as revealed in teachers' behavior ratings.** *J. clin. Psychol.*, 1957, 13, 315-328. 198 first and second grade children from a midwestern urban community were studied. They ranged in age from 6-3 to 10-0. Eight teachers representing the eight classes from which the children were drawn rated the children in their class on a trait list devised for this study. A correlational matrix was completed and then factor analyzed by the complete centroid method. Eleven factors were clearly identified—Cyclothymia vs. Schizothymia, Ego Strength vs. General Emotionality, Excitability—Insecurity, Dominance vs. Submissiveness, Surgency vs. Desurgency, Superego Strength, Parmia vs. Threertia, Premsia vs. Harria, Protension, Alaxia vs. Praxernia, and Guilt—Depression. —A. M. Kaplan.

81. COHEN, JOHN, DEARNLEY, E. J., & HANSEL, C. E. M. (Univer. of Manchester) **A quantitative study of meaning.** *Brit. J. educ. Psychol.*, 1958, 28, 141-148. In making a quantitative study of meaning, operational methods of determining children's interpretations of words and phrases were employed. Children in three age groups 6-7, 9-10, and 12-13 numbering 41, 43 and 46 respectively in the three groups were asked to select "a few," "some," or "a lot" each of six trays, four large ones containing 25, 50, 100 and 200 beads respectively and two small ones holding 25 and 50 beads respectively. The same procedure was followed with each tray and each child made three sets of six such selections. The three grades of choice were demonstrated to have different quantitative meanings for all groups of children with the absolute quantities ranging upward from "some of" to "a few of" to "a lot of." The number of beads taken increased with the number of beads in the tray with no relationship evidenced to size of tray. Older children took fewer beads regardless of the number of beads available. Educational implications were discussed. —W. D. Smith.

82. COHEN, WALTER, HERSHKOWITZ, AARON, & CHODACK, MARJORIE. (Univer. of Buffalo, New York) **Size judgment at different distances as a function of**

age level. *Child Developm.*, 1958, 29, 473-479. Judgments between a comparison object placed at 8 m. from 0 and a standard placed at either 2 m. or 6 m. from 0 were obtained from 42 boys and girls. The 17-year-olds were significantly more accurate in size estimation than the younger groups (5-, 7-, and 12-year-olds) when the standard was at 2 m. from 0 but not when it was at 6 m. The 17- and 12-year-olds had a lower IU than the 5-year-olds at both distances. These results suggest that the distance between test objects is an important variable in understanding the contradictory data presented in developmental studies of size constancy. One of the major implications of the study is that size constancy should not be treated as a unitary phenomenon. —Authors' Abstract.

83. CRANDALL, VAUGHN J., ORLEANS, SONYA, PRESTON, ANNE, & RABSON, ALICE. (Fels Research Inst., Yellow Springs, Ohio) **The development of social compliance in young children.** *Child Developm.*, 1958, 29, 429-444. The present study was concerned with the development of individual differences in young children's social compliance. Two groups of children were studied, a nursery school-age group and a group of six-, seven-, and eight-year-olds. Observers rated and Q-sorted the children's free-play social behaviors as these occurred for the younger group in a nursery school setting and, for the older children, in a day camp. Another observer rated the children's behavior with their mothers in their homes, and the mothers' reactions to this behavior. Relationships among these data were analyzed. These general results were obtained: (a) Sex and intelligence was unrelated to degree of social compliance. (b) Quality of social compliance changed with age. Peer-compliance at nursery school age transpired in a give-and-take atmosphere while peer-compliance in the older children was strongly associated with a general tendency toward low aggression and dominance. (c) The degree of compliance of the older children was more generalized and consistent across situations (from home to Day Camp) and across people (peers vs. adults) than was that of the nursery school age children. (d) In general, maternal rewards for compliance predicted the children's social compliance outside the home better than did maternal punishments for non-compliance. (e) The reactions of the mothers of the older children, both in respect to rewarding compliance and punishing noncompliance, predicted their children's extra-home social compliance to a much greater degree than did the reactions of the mothers of the nursery school age children. (f) Degree of reward for compliance and punishment for noncompliance were positively and significantly related in the mothers of the older children while no relationship was found between these reactions in the mothers of the younger children. Implications of these results were discussed. —Authors' Summary.

84. CURETON, EDWARD E. (Univer. of Tennessee) **The average Spearman rank criterion correlation when ties are present.** *Psychometrika*, 1958, 23, 271-272. This note presents the average Spearman rank correlation between m independent rankings and an untied criterion ranking, corrected for ties in any or all of the independent rankings. —Author's Abstract.

85. DAVIDS, ANTHONY. **Intelligence of disturbed children and their mothers.** *J. consult. Psychol.*, 1958, 22, 159-163. A significant positive correlation was found between the IQs of seriously disturbed, nonpsychotic children and the IQs of their mothers, but no association was found between the IQs of schizophrenic children and their mothers. Both groups of children scored lower than the mothers. All mothers scored higher than the mean for the general population with the mean for the mothers of schizophrenic children being significantly higher than the other group. —E. E. Levitt.

86. DAVIS, JOHN M. (Yale Univer. School of Medicine, New Haven, Conn.) **A reinterpretation of the Barker, Dembo, and Lewin study of frustration and regression.** *Child Developm.*, 1958, 29, 503-506. Child and Waterhouse (CW) have reinterpreted the much discussed frustration and regression experiment of Barker, Dembo and Lewin (BDL) and have arrived at different conclusions from those of the original

authors. BDL rated the behavior of children in a free play situation and in a frustration situation on a number of content categories. They found that the play of the children was less constructive during the frustration period. They interpreted the results in terms of Lewinian primitivization. CW interpreted the experiment in terms of an interference hypothesis. In an attempt to differentiate the two interpretations, five content categories were correlated with each other. The data were supplied in BDL's original paper. From the interpretations of BDL and CW, different predictions were deduced about the correlations between categories. The correlations confirm the predictions deduced from the CW interpretation and do not confirm the prediction deduced from the BDL interpretation. Therefore, the CW interpretation seems to be more consistent with the data. —Author's Abstract.

87. DOUVAN, ELIZABETH, & ADELSON, JOSEPH. (Univer. of Michigan, Ann Arbor) **The psychodynamics of social mobility in adolescent boys.** *J. abnorm. soc. Psychol.*, 1958, 56, 31-44. We have only recently begun to recognize that prevalent views of the dynamics of mobility, based as they are largely on literary sources and on extreme instances, require refinement and differentiation. The paper begins by distinguishing varieties of mobility behavior. There is presented a model of the psychodynamics of upward and downward aspiration, which is tested with data from a national sample of adolescent boys. The general formulation holds that upward mobility is found among boys with effective, autonomous ego functioning; downward mobility is seen as a symptom of demoralization. Psychoanalytic ego theory provides the framework from which we make specific predictions of differences in the areas of activity level, achievement mode, time perspective, internalization of values, autonomy, self-esteem, and family milieu. The findings reveal sharp differences, in the predicted directions, between upward and downward aspiring groups. —Authors' Summary.

88. DREWS, ELIZABETH M. (Michigan State Univer., East Lansing), & TEAHAN, JOHN E. **Parental attitudes and academic achievement.** *J. clin. Psychol.*, 1957, 13, 328-332. The purpose of this study was to test the hypothesis that parents whose children are high academic achievers are less permissive and accepting than parents whose children are low in academic achievement. Two groups of mothers and children were used. One group contained 20 students who maintained an A average for two years and whose Binet IQ was 130 or higher. Also included were 20 students of comparable IQ whose grade average was B minus or lower for two years. All students were equated for socioeconomic status. A second group contained 28 students whose Binet IQs ranged from 93 to 120. Half the group had maintained an A average for two years, the other half, a C minus or D average for two years. In each group the low achievers were matched with the high achievers within 5 IQ points and to within six months in age. Equal numbers of boys and girls were used in each group. A parental attitude scale consisting of Dominating (D), Possessive (P), and Ignoring (I) subscales were rated by each mother. The results indicated that mothers of high achievers scored significantly higher on the D and I subscales. The differences were not significant for the P subscale. "... the mothers of high achievers were more authoritarian and restrictive in the treatment of their children than the mothers of low achievers. The parents of high achievers of gifted intelligence also seemed to have more punitive attitudes with respect to child rearing." —A. M. Kaplan.

89. ERICKSON, FLORENCE H. (Univer. of Pittsburgh, Pa.) **Play interviews for four-year-old hospitalized children.** *Monogr. Soc. Res. Child Develpm.*, 1958, 23, No. 3. 77 p. \$2.50. Play interviews were held with 20 four-year-old children who had been hospitalized in an attempt to learn the meaning intrusive procedures had for them and their methods of coping with these feelings. A control group was composed of 10 four-year-old nursery school children who had not been hospitalized. Clinical equipment for oral, anal, and cutaneous procedures, doll figures representing doctor, nurse, and family, and small toys which are usually enjoyed by four-year-old children, were made available during play interviews. The data presented clear evidence that the children studied perceived no protective intent of the adult behind

the intrusive procedures but rather considered them as hostile in intent with the exception of procedures in the oral area. The consistency with which the children interpreted invasion of the anus and the skin as hostile is of considerable theoretical significance. The data confirmed the hypothesis that when given opportunity for play with clinical equipment and other accessories for projective play, four-year-old hospitalized children were able to express their feelings concerning the procedures which they had experienced. Individual children showed characteristic patterns of striving to cope with these feelings. —Author's Abstract.

90. ESTES, W. K. Theory of learning with constant, variable, or contingent probabilities of reinforcement. *Psychometrika*, 1957, **22**, 113-132. The methods used in recent probabilistic learning models to generate mean curves of learning under random reinforcement are extended to the general case in which probability of reinforcement may vary in any specified manner as a function of trials and to cases in which probability of reinforcement on a given trial is contingent upon responses or outcomes of preceding trials. —Author's Abstract.

91. FERGUSON, EVA DREIKURS. (Univer. of Pittsburgh, Pa.) **The effect of sibling competition and alliance on level of aspiration, expectation, and performance.** *J. abnorm. soc. Psychol.*, 1958, **56**, 213-222. The present study set out to test hypotheses derived from the Adlerian theory of sibling relations. Two duplicate experiments were performed, 20 sibling pairs being drawn from Child Guidance Centers and 20 pairs from a "normal" population. Each group contained 10 pairs of Allies and 10 pairs of Competitors, the operational definition of alliance being sameness of traits of the siblings and competition being oppositeness of traits. Diagnosis of the sibling relations was based on interview material obtained from the mother of each pair of sibs. Each S was tested singly and was given two aspiration tasks and one verbal learning task. On each task, S was given predetermined information about the sibs performance. Although the hypotheses tested by the study were not upheld, Allies and Competitors were found to differ significantly in their goal-setting when the sib's performance was compared to S's own performance. A formulation that revised the original hypotheses of the study was suggested, with the variables of ego-involvement and status-effect being considered crucial to an adequate test of the original hypotheses. Although the present study leaves several unanswered questions, the significant results that were obtained suggest the fruitfulness of further experimental investigation of the Adlerian theory of sibling relations. —Author's Summary.

92. FITZSIMONS, RUTH. (Warwick, R.I.) **Developmental, psychosocial, and educational factors in children with nonorganic articulation problems.** *Child Develpm.*, 1958, **29**, 481-489. The purpose of this study was to determine if speech handicapped children with nonorganic articulation problems differed from normal speaking children in ways other than in the speech disorder syndrome. Data were gathered from a study of two matched groups: a control group of 70 children with normal speech and an experimental group of 70 children with diffuse, nonorganic articulatory problems. Historical case study data were secured. Projective and non-projective test results were analyzed. The articulation sample revealed more deviation in the developmental, psychosocial, and educational variables tested than did the normal speaking sample, experiencing significantly more: (a) abnormal birth conditions, bottle feeding, early weaning, the early occurrence of childhood diseases, early implementation and accomplishment of toilet training and a delay in locomotive-communicative attempts; (b) conduct and habit disorders; (c) unsatisfactory report card grades in health habits, work habits, and language; (d) unsatisfactory scores on reading readiness status and reading grade placement; (e) aggression, fears-anxieties, and perception of parental figures as authoritarian in the CAT protocols. The normal sample attained significantly greater: (a) positive CAT protocol outcomes; and (b) average total oral participation scores. The study suggests a relationship between a diffuse, nonorganic articulatory disorder and psychosocial factors, indicating a need for additional research. —Author's Abstract.

93. FRANKS, BEULAH B., & ROUSEY, CLYDE L. (Univer. of Kansas Medical Center) **Visual perception of stutterers and nonstutterers.** *Child Developm.*, 1958, **29**, 445-447. No important differences were noted between nonstutterers and stutterers in a study of their visual perceptual abilities. The two groups were essentially the same with respect to their case histories. Swift's original hypothesis of a negative relationship between stuttering severity and ability to visualize was not supported. — Author's Summary.
94. GARDNER, D. BRUCE, & SWIGER, MARYBELLE K. (Iowa State College, Ames) **Developmental status of two groups of infants released for adoption.** *Child Developm.*, 1958, **29**, 521-530. The longitudinal investigation of the effects of non-continuous mothering on human development necessitated comparisons of the subjects prior to exposure to the different kinds of mothering under investigation. This report describes the developmental status of three groups of infants at the time they were inducted into the research, prior to any experimental "treatment." Two groups were born to unmarried mothers and released by them for adoption. A third group was composed of infants born into complete families under normal circumstances. Efforts were made to examine all infants at or near one month of age. For each group, data were obtained on a series of anthropometric measurements, motor development, and general developmental status. Analysis of the data by groups revealed that they were comparable in developmental status at the time of induction into the research. —Authors' Abstract.
95. GARSIDE, R. F. (Univer. of Durham, England) **The measurement of function fluctuation.** *Psychometrika*, 1958, **23**, 75-84. A method is suggested for measuring fluctuations in a mental function or performance. There is a test of significance for this method. A comparison with bi-factor analysis and other proposed methods of measuring trait-variability or function-fluctuation is made. —S. G. Vandenberg.
96. GELLERT, ELIZABETH. (Massachusetts General Hospital, Boston) **Reducing the emotional stresses of hospitalization for children.** *Amer. J. occup. Ther.*, 1958, **7**, No. 3. Some common sources of the emotional stresses attending hospitalization have been discussed. Ways have been indicated to deal effectively with these stresses, and to reduce them wherever possible. The objectives set forth in this paper have been presented with the realization that it is not always possible to attain them. Limitations in trained staff, time, and finances, as well as administrative obstacles often stand in the way. The impressive progress that has been made in providing optimum conditions for the physical care of patients suggests, however, that the care of their emotional well-being will become increasingly effective as well. —Author's Summary.
97. GELLERT, ELIZABETH. (Massachusetts General Hospital, Boston) **Systematic observation: a method in child study.** *Harvard educ. Rev.*, 1955, **25**, 179-195. A description of a research technique together with a discussion of some methodological and theoretical problems in its evaluation.
98. GEWIRTZ, JACOB L. (National Inst. of Mental Health, Bethesda, Md.), & BAER, DONALD M. **The effect of brief social deprivation on behaviors for a social reinforcer.** *J. abnorm. soc. Psychol.*, 1958, **56**, 49-56. On the assumption that approval is representative of the reinforcers controlling the purely social initiations made by young children to adults, the verbal approval of an adult (E) was made contingent upon one response in a two-response game for 32 nursery school children (Ss). The change in relative response frequency from a baseline level following introduction of adult approval, reflected the degree to which approval was reinforcing for an S. Adult approval was found to have definite reinforcing value for the Ss ($p < .025$). With control exercised over sex of child, sex of adult, and sequence of conditions, the mean effectiveness of adult approval as a reinforcer for the Ss was enhanced reliably, by a preceding period of 20 minutes of social isolation (conceived to be social deprivation), relative to its effectiveness for the same Ss when not isolated ($p < .025$); and this result was qualified by the fact that the reinforcer dispensed by each E appeared more effective after social deprivation only with Ss of the opposite

sex, with this difference reliable alone for boys tested by the female (rather than the male) E. The increase in effectiveness of adult approval as a reinforcer produced in the children by social isolation was shown to be a positive function of the degree to which they characteristically sought adult approval in other settings ($p < .01$), and of age ($p < .001$), in the 46- to 63-month range studied. Because social isolation excluded access to persons who might provide social reinforcers, its effect was referred to a concept of social deprivation, defined as the unavailability of social reinforcers. Thus it appears that the effectiveness of a representative social reinforcer may be enhanced by an operation of deprivation, as is the case for the reinforcers of primary appetitive drives like hunger and thirst. The effectiveness of this reinforcer appears enhanced particularly for Ss who typically seek it. —Authors' Summary.

99. GIOLAS, THOMAS G. (Univer. of Pittsburgh, Penna.), & **WILLIAMS, DEAN.** **Children's reactions to nonfluencies in adult speech.** *J. Speech Hearing Res.*, 1958, **1**, 86-93. 120 normal speaking kindergarten and second-grade children ranging in age from 5 years and 5 months to 8 years, divided equally as to sex, listened to three 250-word reading passages; one which had no modification identified as the fluent pattern, a second modified so that it contained a predetermined number of kind of interjections and a third modified to include a predetermined number of repetitions of the initial portions of certain words. The children evaluated which persons read the stories best and which story was best. Speech patterns affect children's preferences for a person telling a story, but there was no evidence that they affected preferences for a story. These children seemed aware of the nonfluencies and seemingly reacted against them. —M. F. Palmer.

100. GOLLIN, EUGENE S. (Queens College, Flushing, N.Y.) **Organizational characteristics of social judgment: a developmental investigation.** *J. Pers.*, 1958, **26**, 139-154. The purpose of this investigation was to determine the degree to which impressions of personality are consistent with the Gestalt laws of perceptual organization and whether the observed organizational tendencies follow a genetic sequence of development as implied by Piaget and Werner. Approximately equal numbers of boys and girls (108 or more in each age-sex group) were selected from three CA groups; 10, 13, and 16. A silent movie depicted a boy in five different behavioral sequences. Two scenes in the movie were designed to present examples of "good" behavior and two of "bad" behavior. Following the movie, subjects were asked to write their impressions of the boy. Reliable individual differences in the organizational characteristics of the subjects' judgments were obtained. Variation in the mode of response, for example, the amount of inferential material, was related to age, sex, parental occupation, and intelligence of the subjects. The implications of these findings are briefly discussed in terms of the theoretical notions of Asch, Piaget, and Werner. —C. D. Smock.

101. GREENBERG, H., PIERSON, J., & SHERMAN, S. (Texas Technological College) **The effect of single session education techniques on prejudiced attitudes.** *J. educ. Sociol.*, 1957, **30**, 82-84. Four groups of college students were tested with the California E-Scale. No differences were noted on a retest after a debate, a lecture, and a "buzz" section discussion on the Supreme Court decision regarding desegregation. —L. M. Smith.

102. GRIFFITH, BELVER C., & SPITZ, HERMAN H. (Edward R. Johnstone Training and Research Center, Bordentown, N.J.) **Some relationships between abstraction and word meaning in retarded adolescents.** *Amer. J. ment. Def.*, 1958, **63**, 247-251. A verbal abstractions test, consisting of 24 groups of three nouns each, was administered to a group of high grade mentally retarded adolescent boys. A vocabulary test, in which were imbedded 18 of the words from the verbal abstractions test, was also administered. Results indicate that high grade retardates are most likely to achieve a verbal abstraction when they define at least two of the three words in terms of a possible abstraction. Implications of these results for future research and for the training of retarded subjects were discussed. —Authors' Summary.

103. GULLIKSEN, HAROLD, & TUKEY, JOHN W. (Princeton Univer., N.J.) **Reliability for the law of comparative judgment.** *Psychometrika*, 1958, **23**, 95-110. A variance-components analysis is presented for paired comparisons in terms of three components: *s*, the scale value of the stimuli; *d*, a deviation from the linear model specified by the law of comparative judgment; and *b*, a binomial error component. Estimates are given for each of the variances for these three components. Coefficients which have some analogy to reliability coefficients and which are based on these variances are indicated. The techniques are illustrated by an example in which a comparison of handwriting specimens was replicated. —S. G. Vandenberg.

104. HAM, R. E. (Ohio Univer., Athens) **Relationship between misspelling and misarticulation.** *J. Speech Hearing Disorders*, 1958, **23**, 294-297. 40 children with functional defects of articulation were drawn from speech classes in the Kalamazoo, Michigan schools and grouped into 25 second-grade students, six in the third grade, five in the fourth grade and four in the fifth grade. Words that are misarticulated are misspelled more frequently than words that are pronounced correctly. Maximal word lengths were significantly related to the frequency of misspellings. The presence of articulatory problems in the early grades may tend to be accompanied by problems in other language skills. —M. F. Palmer.

105. HANLEY, C. N. (Univer. of Washington, Seattle), & **MANNING, C. C.** **Voice quality after adenotonsillectomy.** *J. Speech Hearing Disorders*, 1958, **23**, 257-262. 37 children coming to the King County Washington Health Department for adenoidectomy were recorded pre-operatively and for a period of 37 days post-operatively. The entire series was randomized and presented in two different ways to a group of expert judges for scaling. There were significant mean differences between pre- and post-operative recordings in the direction of great hypernasality in post-operative voices. No significant differences were found in means of post-operative recordings. A significant difference was determined between reversed and normal playback techniques with reversed playback procedures resulting consistently in higher scale values. —M. F. Palmer.

106. HELMSTADTER, GERALD C. **An empirical comparison of methods for estimating profile similarity.** *Educ. psychol. Measmt*, 1957, **17**, 71-82. Artificial data were used to compare 12 methods of judging similarity of profiles in terms of their cost in time and success in classifying profiles. Differences in the latter which favored the intraclass correlation and the discriminant function may have been due to the nature of the data. Even the simplest of more subjective techniques were fairly successful with the kind of data used in this study. —S. G. Vandenberg.

107. HELPER, MALCOLM M. (Univer. of Nebraska, Lincoln) **Parental evaluations of children and children's self-evaluations.** *J. abnorm. soc. Psychol.*, 1958, **56**, 190-194. Two self-evaluative measures, labelled Self-Favorability and Self-Acceptance, were derived from self-ratings by 74 8th- and 9th-grade children. Analogous measures of parental Favorability and Acceptance with respect to the child were derived from ratings by parents of 51 of the children. Sociometric information was available for the children. Although the measures of Favorability and Acceptance had adequate reliability, correlations between the two variables were low in both parents and children. Correlations between parental evaluations and children's self-evaluations tended to be small but consistently positive. The results were interpreted as evidence that attempts to increase the validity of assessments of parental attitudes and further to differentiate aspects of self-evaluations would prove rewarding. — Author's Summary.

108. HILL, T. J. (Univer. of Florida) **Attitudes toward self, an experimental study.** *J. educ. Sociol.*, 1957, **30**, 395-397. A six week unit on "social class" in 9th, 10th and 12th grade social studies classes did not change student attitudes toward self as measured by the Phillips Attitude Toward Self and Others Questionnaire. Attitudes toward self, for both higher and lower social economics change with age; the change appears greater for the higher socioeconomic groups. —L. M. Smith.

109. HONKAVAARA, S. (Metropolitan State Hospital, Waltham, Mass.) **An attempt to measure intelligence in terms of organic development.** *J. Psychol.*, 1958, 45, 37-42. We started with an assumption that it is possible to measure intelligence in terms of organic development, and a special grouping test was used with subjects of bright and backward children, the age ranging from 5 to 8 years. The results showed that the difference between bright and backward children consists in the fact that in the oldest group the bright ones are able to do the grouping on the abstract level, whereas the dull ones do it mainly on the concrete level. Going down in the chronological age, the number of dynamic-affective answers increases in the backward group, and in the group of five-year-old children, neither the bright nor the backward group can do the task on the abstract level, both groups are concrete, but the backward group shows dynamic-affective reactions besides. . . . —From Author's Summary and Discussion.

110. HONKAVAARA, S. (Metropolitan State Hospital, Waltham, Mass.) **A critical reevaluation of the color and form reaction, and disproving of the hypotheses connected with it.** *J. Psychol.*, 1958, 45, 25-36. With an intent to disprove the inferences drawn by Descouedres, Katz, etc., that a color reaction is a sign of primitivity in a personality and characteristic of children, the writer has repeated Katz' and Descouedres' tests, but varying them in liked, indifferent, and disliked colors, so allowing the display of emotions towards the colors used. The results were quite opposite to the generally accepted theories: Backward children are more often form reactors than bright children, and form reactors are more common among women than among men. Color and form reactions seem to be manifestations of the whole personality, and a new typology can be built on them. These results will be published later on. Rorschach's statement that a color reaction is a sign of unbalanced emotionality will also be questioned in some further discussion. —Author's Summary.

111. HONKAVAARA, S. (Metropolitan State Hospital, Waltham, Mass.) **The "dynamic-affective" phase in the development of concepts.** *J. Psychol.*, 1958, 45, 11-23. We started with Professor Werner's statement that in the study of the development of concepts one has to ask: "What are the different function patterns underlying the concept formation which appear at different age levels?" A hypothesis was suggested that in some cases the first phase in the development of concepts is dynamic-affective, i.e., the subject's own likes and dislikes determine how he comprehends the concepts. The concepts do not exist separate from the perceiving subject, but belong to the diffuse combination of the ego-centered subject and his environment. In the experiments, this is shown to be true with the concepts "Happy," "Harmonious," "Living," and "Conscious." In the experiment with the expression "Happy," undeveloped subjects became "blinded" by the colour red added and chose a miserable girl as a happy one, because they liked the colour of her dress. In the experiment with the concept "Harmonious," on the other hand, children experienced unbalanced groups of colours as "harmonious," if they liked some particular colours in them. "Living" is a concept which is influenced by the undeveloped subject's likes or dislikes. A liked object is seen as "living" and a disliked one as "dead." The same dynamic-affective element goes through all the four stages of "living" as stated by Piaget and experimentally proved by Russell and Dennis. Signs of dynamic-affective behaviour were found also in the experiment on the concept "Conscious," but in this experiment we succeeded in eliciting it only in Stages I and II. . . . —From Author's Summary.

112. HONKAVAARA, S. (Metropolitan State Hospital, Waltham, Mass.) **Some critical notes concerning the concept of rigidity and its measurement.** *J. Psychol.*, 1958, 45, 43-46. The purpose of this paper was to make clear the difference between perseveration and disposition rigidity. Perseveration, i.e., a mental inertia in switching over from a series of repeated actions to a new series of actions, seems to be connected with emotionality, and most likely also with the depth of the personality. Disposition rigidity, on the other hand, means that something in the series of actions or in the environment remains the same, and that the change of a detail is

experienced as a change of the whole and is disturbing. The writer does not know any test which measures this real disposition rigidity. In order to find a test which measures it, one ought to start with subjects who in real life show rigid behavior, and then show how their answers differ from those of normal persons. Being misled by the overt similarity of the phenomena, the discussion in this field has until now neglected this point of validity which ought to be of crucial importance. —Author's Summary.

113. HOUSE, BETTY J., & ZEAMAN, DAVID. (Univer. of Connecticut, Storrs) **A comparison of discrimination learning in normal and mentally defective children.** *Child Developm.*, 1958, 29, 411-416. As a check on the validity of the hypothesis, derived from previous research, that IQ is related to learning ability with MA controlled, the visual discrimination learning of 30 nursery school children of MAs IV and V was compared with that of 32 mentally defective children of approximately the same MA. The data were consistent with the hypothesis. At MA IV, the normals, with their higher IQs learned to discriminate significantly faster than the defectives. —Authors' Abstract.

114. HUNT, LUCILLE AUST. **A developmental study of factors related to children's clothing preferences.** *Monogr. Soc. Res. Child Developm.*, 1959, 24, No. 1. 47 p. \$1.75. The purpose of this investigation was to determine what relationships exist among certain factors generally assumed to influence children's clothing preferences. The stimulus variables were color (including hue, brightness, and saturation), pattern, style (in relation to occasion), and texture. 128 children, ranging in age from three through ten, were interviewed. In order to investigate the extent of mother-child agreement, the mother of each child was interviewed regarding her preferences for her child's clothing. The results of this investigation suggest that, under these conditions, certain tendencies exist among the factors related to these children's clothing preferences. These tendencies may be summarized as follows: (a) Significant differences in preferences appeared to exist among each of the six stimulus variables. (b) Brightness and saturation preferences tended to vary significantly with color. (c) Pattern preferences tended to vary significantly with color preferences. (d) Style preferences tended to vary significantly with occasion. (e) Age appeared to influence color, pattern, style, and texture preferences. (f) Sex appeared to influence brightness, pattern, and style preferences. (g) Mother-child agreement appeared to increase with advancing age, although the magnitude of the differences was significant only in the cases of style. (h) Sex appeared to influence mother-child agreement on brightness and style preferences. —Author's Abstract.

115. JEFFREY, WENDELL E. (Univer. of California, Los Angeles) **Variables in early discrimination learning: II. Mode of response and stimulus difference in the discrimination of tonal frequencies.** *Child Developm.*, 1958, 29, 531-538. The Ss were 5½-year-old children. The criterion task was to learn to push two buttons, oriented to the left and right, differentially to two tones separated by three octaves and a fifth. Group I had training only on this task. Prior to testing on the criterion task, Group II Ss were required to match the same two tones by singing, and Group III produced matching tones on a piano. Although Ss in Group II had difficulty making a match, they did seem to make differential responses, and when transferred to the button pressing criterion task, these Ss performed significantly better than those in Group I. The Group III Ss, who were required to produce matching tones on a piano, learned this quite readily and showed almost perfect transfer to the criterion task. Thus, Groups II and III differed significantly from Group I but not from each other. All Ss who met the criterion on the button pressing task were subsequently required to make this same response to stimuli differing by only five-eighths of an octave. There was no evidence of transfer to these new stimuli in any of the groups. —Author's Abstract.

116. JONES, MARY COVER, & MUSSEN, PAUL HENRY. (Univer. of Calif., Berkeley) **Self-conceptions, motivations, and interpersonal attitudes of early- and**

late-maturing girls. *Child Developm.*, 1958, 29, 491-501. The present study was designed to investigate the relationship between maturational status and TAT scores for a group of physically-accelerated as contrasted with a group of slow-developing girls from a normal classroom sample. The TAT protocols of 34 17-year-old girls—16 who had been consistently accelerated and 18 who had been consistently retarded—were analyzed according to a scoring scheme involving 20 needs, press, and descriptive categories. The scores of early- and late-maturing in each of the categories were compared. Earlier reports had indicated that girls who reach puberty early are likely to be socially disadvantaged, at least until the rest of their age group "catch up" with them. It was assumed that this social disadvantage would be reflected in the TAT protocols and that differences between the two maturity groups in self-concepts, attitudes, and motivations would be found. Analysis of the data of the present study found few striking differences between the two groups of girls. However, early maturing girls had significantly lower scores on the category "negative characteristics," indicating more favorable self-concepts. This finding is contrary to what might have been expected on the basis of observational ratings by adults and reputational ratings by classmates. On the other hand, the TAT results are in line with scores (total adjustment, self-adequacy, family adjustment) on a self-report inventory. Late-maturing girls have significantly higher scores on "n Recognition," which is corroborated by data from other sources. When the differences between early- and late-maturing girls are compared with the differences between early- and late-maturing boys, they are found to be in the same direction more often than in the opposite. These findings are interpreted to indicate that late-maturing adolescents of both sexes are characterized by less adequate self-concepts, slightly poorer parent-child relationships, and some tendency for stronger dependency needs. It has been emphasized that complex psychological and cultural factors as well as maturational status contribute to personality development and that the pattern of these influences varies for each individual. —Authors' Summary.

117. KAGAN, JEROME, SONTAG, LESTER W., BAKER, CHARLES T., & NELSON, VIRGINIA L. (Antioch College, Yellow Springs, Ohio) **Personality and IQ change.** *J. abnorm. soc. Psychol.*, 1958, 56, 261-266. For a group of 140 boys and girls in the Fels Research population on whom continuous Binet IQ data were available, a distribution of IQ change was obtained by subtracting each S's smoothed IQ at age 6 from his smoothed IQ at age 10. This distribution of differences was divided into quartiles, and the Rorschach and TAT protocols of the upper, (maximum increase in IQ) and lower (maximum decrease in IQ) quartiles were analyzed and compared. The results showed that in comparing the Ss who showed IQ increases with those showing IQ decreases, the former had, on the TAT, significantly more (a) achievement imagery on Cards 1 and 17 BM and (b) themes of curiosity about nature on Card 14, and significantly fewer themes of passivity on Card 3 BM. For the boys only, more of the Ss who increased in IQ had anatomy responses and aggressive imagery on the Rorschach. The results were interpreted as indicating that high need achievement, competitive striving, and curiosity about nature are correlated with gains in IQ score because they may facilitate the acquisition of skills that are measured by the intelligence test. —Authors' Summary.

118. LEREA, LOUIS. (Southern Illinois Univer., Carbondale) **Assessing language development.** *J. Speech Hearing Res.*, 1958, 1, 78-85. Picture language inventories were constructed to evaluate both expression and comprehension of vocabulary and structure in normal, brain-injured, and aphasoid children. The computed reliability and validity measures suggest these inventories possess sufficient sensitivity to become eventually effective supplementary tools in the diagnosis of language retardation. —M. F. Palmer.

119. LESSER, GERALD S. (Hunter College, New York City) **Extrapunitiveness and ethnic attitude.** *J. abnorm. soc. Psychol.*, 1958, 56, 281-282. The present study examines the relationship between anti-Semitism and extrapunitiveness among both Jewish and non-Jewish boys. . . . The subjects were 20 white non-Jewish boys (ages

10-0 to 13-1) and 24 white Jewish boys (ages 10-2 to 13-2) drawn from one fifth-grade and two sixth-grade classes. . . . Extrapunitiveness was measured through the Children's Form of the Rosenzweig Picture Frustration Study. . . . An "anti-Semitism" score [sociometric] was obtained for each boy. . . . For non-Jewish boys . . . the correlation [ρ] between extrapunitiveness and "anti-Semitism" is $+.60$ For Jewish boys . . . the corresponding correlation is $+.48$ These coefficients are not significantly different. —H. D. Holloway.

120. LETON, DONALD A. (Univ. of Calif., Los Angeles) **A study of the validity of parent attitude measurement.** *Child Developm.*, 1958, **29**, 515-520. Shoben's Parent Attitude Survey and a revision of the Minnesota Teacher Attitude Inventory were administered to a representative sample of parents of children in kindergarten through the eighth grade. A summary of the findings follows: 1. There was no significant relationship between scores on the two attitude inventories. 2. There was a significant similarity between mother and father attitudes toward children within a given family. 3. Although mothers obtained more favorable scores than did fathers on both instruments, the differences were not significant. 4. There was no significant difference between the attitude scores of parents whose children received ratings of "excellent adjustment" and those whose children received "poor adjustment" ratings. 5. There was a wider disagreement in attitudes between mothers and fathers of poorly adjusted children than between mothers and fathers of well adjusted children. —Author's Summary.

121. LEVIN, HARRY, & BALDWIN, ALFRED L. **The choice to exhibit.** *Child Developm.*, 1958, **29**, 373-380. Two studies were reported in which children chose how visible they wanted to be to audiences of various prestiges, depending on whether they had previously been praised or reproved for their performance on a model building task. In the first experiment, children wanted to be most visible to a younger audience, next to their classmates, and least visible to an older, high school audience. Whether they had succeeded or failed on the task made no difference in their preferred visibility. In the second study, each child was given both a success and a failure experience on successive days, with the sequence varied across children. Children want to be more visible after their success than following their failure experiences. Also, the preference for the greatest exposure occurs when success has followed a previous failure. The concepts of pride and shame are used to explain these findings. When children anticipate feelings of pride, they will choose to make themselves and their competencies visible. Conversely, the anticipation of shame disposes them to conceal themselves and their inadequacies. —Authors' Summary.

122. LEVY, EDWIN. (Eastern Penn. Psychiatric Institute, Philadelphia) **Stimulus-values of Rorschach cards for children.** *J. proj. Tech.*, 1958, **22**, 293-296. The purpose of this study was to test Halpern's hypothesis that Cards IV and VII of the Rorschach are responded to by children as the father and mother cards, respectively. 27 seven-year-old children matched dolls representing a man, a woman, a boy, and a girl to the Rorschach cards. Results show that Card IV was matched as a male card and Card IX as a female card. Cards IV and VI were matched as father cards. No card was matched to a significant level as a mother card. Thus, the hypothesis that Card IV is seen as a father card was supported, but no evidence was found that Card VII is seen as a mother card. —L. Harrell.

123. LIPSITT, LEWIS P. (Brown Univer., Providence, R.I.) **A self-concept scale for children and its relationship to the children's form of the manifest anxiety scale.** *Child Developm.*, 1958, **29**, 463-472. A self-concept scale and an ideal-self scale were administered twice, along with the children's manifest anxiety scale, to approximately 300 fourth, fifth, and sixth grade children at a two-week interval. A discrepancy score, or measure of self-disparagement, was obtained by subtracting Ss' self-concept ratings from their ideal-self ratings. It was found that the self-concept measure taken by itself was more reliable than the discrepancy measure, and that the self-concept measure was more highly related to anxiety scores than was the

discrepancy score. Significant correlations were obtained for all grade and sex combinations between anxiety and self-concept scores, with high-anxious Ss producing low self-concept (or high self-disparagement) ratings. The two-week reliability of the children's anxiety scale was essentially the same as that for the original population. —Author's Abstract.

124. MARK, HENRY J., & PASAMANICK, BENJAMIN. Asynchronism and apparent movement thresholds in brain-injured children. *J. consult. Psychol.*, 1958, **22**, 173-177. Differences in asynchronism, apparent movement, and peripheral two-point thresholds found between brain-injured (pyramidal tract damaged) and control children support the two major hypotheses of impairment in visual efficiency, and increased intra-individual variability in the brain-injured. —Authors' Abstract.

125. MAXWELL, A. E. Contour analysis. *Educ. psychol. Measmt*, 1957, **17**, 347-360. A method for use in problems of estimation and prediction is outlined and illustrated with an example. —S. G. Vandenberg.

126. MEEK, C. R. (Southern Illinois Univer., Carbondale) An experiment in teaching empathy. *J. educ. Sociol.*, 1957, **31**, 107-110. A group of student teachers, each with another student, had short role-playing interviews, oriented toward predictions of how the student would describe himself. Rankings were made on seven dimensions from the California Psychological Inventory. Each student also took the CPI and estimated how his interviewer would respond. Discrepancy scores were summed. After a five-session program related to the nature and importance of empathy, the development of empathy in group members, and so forth, post experiment results indicate an increase in empathizing ability as measured by rankings but not by testing. —L. M. Smith.

127. MILTON, G. A. (Univer. of Colorado, Boulder) A factor analytic study of child-rearing behaviors. *Child Developm.*, 1958, **29**, 381-392. This study is a factor analysis of 44 parental child-rearing behaviors. Behaviors were chosen which have relevance for current theories of personality development. The data used in the analysis were obtained from interviews with 379 suburban New England mothers of children of ages five to six years. Seven factors emerged from the analysis and at least five of these were identified as stable dimensions relevant to developmental theory. The results of this analysis were compared with the results of similar studies by other investigators. —Author's Summary.

128. MITNICK, LEONARD L., & MCGINNIES, ELLIOTT. (Human Resources Research Office, Washington, D.C.) Influencing ethnocentrism in small discussion groups through a film communication. *J. abnorm. soc. Psychol.*, 1958, **56**, 82-90. This study investigated the effects of ethnocentric attitudes and discussion participation upon the degree and stability of learning and attitude change in response to a persuasive communication. 12 experimental groups, each composed of nine high school students, viewed a sound film, "The High Wall." Six of the groups held discussions of the film, while the remaining six did not. The groups were formed on the basis of scores on the California Ethnocentrism Scale, so that two groups under each of the experimental conditions represented low, middle, and high scores on the E scale. Following experimental treatment, film-discussion or film-alone, all of the group members were tested for attitude change and amount of factual information learned from the film. Six control groups were given pre- and post-tests on the questionnaires without intervening exposure to either the film or discussion. One month following the experimental treatments, all groups were retested on the E scale, and the experimental groups were also readministered the Information test. The major findings of this experiment may be summarized as follows: (1) Significant reductions in ethnocentrism, as measured by the E scale, were produced in both the film-discussion and film-alone groups. For prejudiced Ss, the effect was significantly less in the discussion groups than in the non-discussion groups. Ethnocentric predisposition alone, however, did not affect the extent of attitude change induced by the film. (2) Stability of atti-

tude change was a function of experimental treatment. The active and passive members of discussion groups, when tested one month later, had largely retained their post-treatment attitude gains, while the film-alone groups had regressed significantly toward their original attitudes. (3) Amount of information learned from the film was related to initial attitude. Those individuals who were low in ethnocentrism learned more from the film than those high in ethnocentrism. This trend persisted in the retention measures taken a month later. (4) Active discussion participants learned more from the film than passive participants. Analysis of this finding led to the conclusion that extent of participation in discussion depends upon the amount of learning that has taken place. —Authors' Summary and Conclusions.

129. MOWRER, O. H. (Univer. of Illinois, Urbana) **Hearing and speaking: an analysis of language learning.** *J. Speech Hearing Disorders*, 1958, **23**, 143-152. Mowrer considers the traditional theories of conditioned reflex, the law of effect, and imitation inadequate. He discusses his autism theory which consists of secondary re-enforcing properties. Author believes that the autism theory fits other habits as well. —M. F. Palmer.

130. RABIN, A. I. (Michigan State Univer.) **Some psychosexual differences between Kibbutz and non-Kibbutz Israeli boys.** *J. proj. Tech.*, 1958, **22**, 328-332. A group of 27 ten-year-old boys from patriarchal-type families were compared with a group of 27 boys who were reared in the Kibbutz (collective settlement) with respect to three psychosexual dimensions: Oedipal intensity, positive identification, and sibling rivalry. The structured response items of the Blacky Test inquiry were used as a basis for comparison. Consistent with the stated hypotheses, the experimental group gave evidence of lesser Oedipal intensity, more diffuse positive identification, and less intense sibling rivalry. —Author's Summary.

131. RICHARDS, T. W. (Louisiana State Univer., New Orleans) **Movement in the fantasy of brain-injured (cerebral palsy) children.** *J. clin. Psychol.*, 1958, **14**, 67-68. A general finding of this study of differences between children brain-injured at birth and controls is that with a motion-picture stimulus of movement the brain-injured children were as spontaneous as controls. Like the uninjured child the brain-injured subject tends to identify motion as that of animals, humans, plants and objects. He differs from the uninjured in showing total avoidance of movement as a physiological phenomenon, and in using movement that is self-initiated and extensor rather than flexor and initiated by an outside source. The brain-injured child, in his fantasy of activity, is much like the uninjured child, but he shows a significant tendency to disavow the physiological nature of activity, and to experience it as outgoing and active rather than passive. In his fantasy he denies that movement is a matter of his own physiology; rather, movement is an aggressive experience. This substantiates a theory that fantasy serves as wish fulfillment, or at least, compensation for motor handicap. —Author's Summary.

132. ROUSEY, CLYDE. (Kansas Univer. Medical Center, Kansas City) **Stuttering severity during prolonged spontaneous speech.** *J. Speech Hearing Res.*, 1958, **1**, 40-47. 18 adolescent stutterers talked ten hours a day for five consecutive days. The severity of their stuttering was measured at regular intervals by using a subjective rating of severity, a count of the number of visible secondary symptoms and a count of the number of words spoken. A statistically significant decrement in stuttering was generally demonstrated. —M. F. Palmer.

133. SAKODA, JAMES M., & COHEN, BURTON H. **Exact probabilities for contingency tables using binomial coefficients.** *Psychometrika*, 1957, **22**, 83-86. The use of binomial coefficients in place of factorials to shorten the calculation of exact probabilities for 2×2 and $2 \times r$ contingency tables is discussed. A useful set of inequalities for estimating the cumulative probabilities in the tail of the distribution from the probability of a single table is given. A table of binomial coefficients with four significant places and n through 60 is provided. —Authors' Abstract.

134. SCHAEFER, EARL S., & BELL, RICHARD Q. (National Inst. of Mental Health, Bethesda, Md.) **Development of a parental attitude research instrument.** *Child Develop.*, 1958, 29, 339-362. Theories of parental influence upon development of children and a review of previous research on the relationship of parental attitudes to the personality adjustment of children suggested the need for the development of a set of homogeneous measures of parental attitudes. A set of 32 concepts were selected which were derived from previous studies and from a search of the literature on parent-child relationships. Attitude scales of five to 10 items which gave satisfactory reliability for research purposes were developed with an iterative technique of attitude measurement. Many of these measures were found to be related to education, with mothers of higher education having more usually approved attitudes toward child-rearing. It is suggested that logically, psychologically, and empirically homogeneous scales of attitude toward child-rearing will be useful in investigating theories of the influence of maternal attitudes upon development of the child. —Authors' Summary.
135. SCHIEFELBUSCH, R. L. (Univer. of Kansas, Manhattan), & LINDSEY, MARY LEANNE. **A new test of sound discrimination.** *J. Speech Hearing Disorders*, 1958, 23, 153-159. 90 pictures were arranged in three groups in order to sample children's responses in relationship to discrimination, rhyming, initial and final sounds. 24 first and second grade children with defective articulation were matched against 24 children with normal speech. Significant differences were found between the speech defective and the normal speaking groups in relation to sound discrimination abilities, rhyming, initial and final sounds. Method of presentation did not show significant results. Speech defective children have greater difficulty in discerning self-monitored sound patterns. Second grade normal speaking group found to have better sound discrimination than first grade. —M. F. Palmer.
136. SETH, GEORGE. (The Queen's Univer., Belfast) **Psychomotor control in stammering and normal subjects: an experimental study.** *Brit. J. Psychol.*, 1958, 49, 139-143. The regularity of performance in a motor task not involving the speech mechanism—namely, finger tapping on a tambour—was investigated in 15 stammering and 15 nonstammering subjects, aged 11 to 15. All but two of each group were boys. The stammerers were markedly inferior to the controls in their ability to maintain a rhythmic performance, as measured by the coefficient of variation for number of taps per given time period. Though all the stammerers were ostensibly right handed, their right-hand performances were markedly inferior to their own left-handed performances. The authors conclude that "the disorganization of psychomotor performance is not confined to the speech-function, and may appear in situations where communication by speech is not involved, and in which the influence of personal-social factors is reduced to a minimum." —R. N. Walker.
137. SHARP, HEBER C. (Utah State Univer., Salt Lake City) **A comparison of slow learner's scores on three individual intelligence scales.** *J. clin. Psychol.*, 1957, 13, 372-375. The author studied the adequacy of the Leiter International Performance Scale (LIPS) norms for the older mentally retarded child and the variability of the LIPS with the Form L Binet Scale (S-B) and the Wechsler Intelligence Scale for Children (WISC). 50 children ranging in age from 8-0 to 16-5 were studied. All but one scored less than 75 on the Binet. The LIPS and WISC were administered to the children at the beginning of the school year. The results indicated that there was a greater relationship between the WISC and LIPS than between the LIPS and S-B. There were insignificant differences between the means and significant ($F < .001$) intertest variations. The variation was greatest for the older children and so the author questions the adequacy of the LIPS norms for the older mentally retarded child. —A. M. Kaplan.
138. SHARP, HEBER C. **A note on the reliability of the Leiter International Performance Scale 1948 revision.** *J. consult. Psychol.*, 1958, 22, 320. A test-retest reliability of .91 was found for the LIPS for 48 retarded children; the test-retest interval was at least six months. —E. E. Levitt.

139. SIEGMAN, ARON WOLFE. (Univer. of North Carolina, Chapel Hill) **Authoritarian attitudes in children. I. The effect of age, IQ, anxiety and parental religious attitudes.** *J. clin. Psychol.*, 1957, **13**, 338-340. The Children's Antidemocratic Scale (CAS) was administered to 83 subjects with an age range of nine to thirteen. Subject's CAS scores decreased significantly with age. It was suggested that the decrease in authoritarian attitudes with age is due to the maturation of the subject's cognitive processes as well as the subject's increasing independence of parental authority. Subjects with high CAS scores obtained significantly lower verbal IQ scores and significantly higher scores on the Children's Manifest Anxiety Schedule than those with low CAS scores. Finally, subjects whose parents were strictly observant of the Jewish religion tended to fall either in the upper or the lower quartile of the CAS distribution. —Author's Summary.

140. SPIKER, C. C. (Univer. of Iowa, Iowa City), & HOLTON, R. B. **Associative transfer in motor paired-associate learning as a function of amount of first task practice.** *J. exp. Psychol.*, 1958, **56**, 123-131. Four experiments were designed to study associative interference in motor paired-associate learning. Fourth and fifth grade children were the subjects. The task used involved the association of colored stimulus lights with the correct response buttons. In Experiments I and II, using an A-B, A-C design with an A-B, D-C, control condition, significant interference was shown for the A-C condition and the amount of interference in the A-C condition was an increasing function of the amount of Task I practice. Experiments III and IV varied the number of presentation of various S-R pairs in the first portion of the experiment. The number of errors was found to increase with the number of Task I presentations. —L. Hodgden.

141. SPITZ, HERMAN H. (Edward R. Johnstone Training and Research Center, Bordentown, N.J.) **Neural satiation in the spiral aftereffect and similar movement aftereffects.** *Percept. Motor Skills*, 1958, **8**, 207-213. Based on the Koehler-Wallach theory of satiation, a neurophysiological explanation of movement aftereffects, with particular reference to the spiral aftereffect, is proposed. The results of research with the spiral aftereffect pose difficult problems for any explanation of this phenomenon, and the present proposal is presented only as a preliminary hypothesis to be tested further and eventually modified. —Author's Summary.

142. SPITZ, HERMAN H., & BLACKMAN, LEONARD S. (Edward R. Johnstone Training and Research Center, Bordentown, N.J.) **The Mueller-Lyer illusion in retardates and normals.** *Percept. Motor Skills*, 1958, **8**, 219-225. A group of 24 high-grade mentally retarded boys was compared with a normal control group (N = 22) on the Mueller-Lyer illusion. When discrimination and directional errors were controlled, the retardates perceived less of an illusion than did the normals, but the differences were not significant. However, when all Ss (N = 30) who had satiated on a previous visual aftereffects test were compared with all Ss (N = 16) who had not, it was found that satiating Ss perceived a larger illusion than did non-satiating Ss, a result attributable primarily to differences within the retarded groups. Nevertheless, this finding is interpreted as adding some corroborative evidence to the hypothesis that the initial phase of the satiation process is to some extent responsible for the perception of the illusion in the Mueller-Lyer figure. Finally, the present results suggest that retardates may be sub-divided into separate groups composed of more or less brain-modifiable Ss, based on their consistent responses to selected perceptual tasks. —Authors' Summary.

143. SPRIESTERSBACH, D. C., DARLEY, FREDERIC, & MORRIS, HUGHE-LETT L. (Univer. of Iowa, Iowa City) **Language skills in children with cleft palates.** *J. Speech Hearing Res.*, 1958, **1**, 279-285. 3 measures of language development were obtained from 40 children with cleft lips and cleft palates or with cleft palates only between ages of 3 and 8 who were singletons of the Caucasian race with normal mental ability and without hearing loss. 50 responses were analyzed for mean length of response and structural complexity and resultant scores compared with norms. A

recognition vocabulary test administered to all subjects with cleft palate children showed superior recognition of vocabulary. Cleft palate subjects demonstrated no general language retardation but were retarded on measures of amount of verbal output and vocabulary usage. Children with cleft palates are in general retarded in mean length of response. Their language development as measured by structural complexity is not different from that of the normal. They are in general retarded in vocabulary usage. —M. F. Palmer.

144. STAINES, J. W. (Newcastle Teachers' College & Univer. College, N.S.W., Australia) **Symposium: the development of children's values. III. The self-picture as a factor in the classroom.** Brit. J. educ. Psychol., 1958, 28, 97-111. To test the hypotheses that teachers differ in frequency and kind of comments regarding the self and that routine teaching can be designed to effect changes in the self-picture, two data gathering techniques were used. The first was an analysis of teacher's comments to children and the second was an experimental teaching period of 12 weeks in which the child was led to see himself in various ways. Two pairs of teachers, one in the junior and one in the infants' school, served as subjects. The results showed marked differences between teachers in frequency of self-reference, that the experimental teacher's efforts produced significant changes in self-ratings by pupils in the direction of greater psychological security, and that no differences existed in standardized test scores between experimentals and controls over the experimental period. The implications of the procedure for education are discussed. —W. D. Smith.

145. STEVENSON, H. W., & PIROJNICKOFF, L. O. (Univer. of Texas, Austin) **Discrimination learning as a function of pre-training reinforcement schedules.** J. exp. Psychol., 1958, 56, 41-44. The subjects used were 48 nursery school children. Groups of Ss were given either 100%, 50%, or 0% reinforcement during a pre-training series of 20 trials. Following this, all Ss were presented with a form discrimination task involving the stimuli used in the pre-training. A fourth group of Ss learned the discrimination with no prior experience with the stimuli. Significant differences among the first three groups in the frequency of correct responses during the learning trials and a significant interaction between trials and conditions were obtained. The performance of the fourth group did not differ significantly from that of the 100% group. —L. Hodgden.

146. STEVENSON, HAROLD W., & STEWART, EDWARD C. (Univer. of Texas, Austin) **A developmental study of racial awareness in young children.** Child Develpm., 1958, 29, 399-409. A series of tests involving discrimination of physical differences between Negroes and whites and attitudes toward race were presented to 125 white and 100 Negro Ss between the ages of 3 and 7 years. A rapid increase in the ability to discriminate between the races was found in both racial groups between these ages. The white Ss tended to develop such discriminations at a younger age than did the Negro Ss. The Negro Ss made a lower frequency of own-race choices than did white Ss in items involving the selection of a child as a playmate, as looking most like S, etc. The Negro Ss assigned negative roles to Negro children more frequently than the white Ss assigned such roles to white children. —Authors' Summary.

147. STEVENSON, H. W., & ZIGLER, E. F. (Univer. of Texas, Austin) **Probability learning in children.** J. exp. Psychol., 1958, 56, 185-191. Three experiments are reported which investigate the performance of children in a probability learning task. In Experiments I and II normal and feeble-minded children were tested on a problem where the correct response resulted in 100%, 66%, or 33% reinforcement. In Experiment III normal children were given pretraining on three nonlearning games with 100% or 33% reinforcement and were then trained in the discrimination problem with 66% reinforcement of the correct response. Predictions were made from an hypothesis relating performance to the subjects' expectancy of reinforcement. Feeble-minded subjects performed at a higher level in the 33% and 66% conditions than normal subjects and at a comparable level in the 100% conditions. The subjects in Experiment III receiving 100% reinforcement during the pretraining period made

significantly fewer correct responses during the learning problem than did the subjects receiving 33% reinforcement during pretraining. —L. Hodgden.

148. STRAUSS, ALFRED A., & MCCARUS, ERNEST N. (Univer. of Michigan, Ann Arbor) *A linguist looks at aphasia in children*. *J. Speech Hearing Disorders*, 1958, 23, 54-58. Review of the theoretical constructs of the contributions of linguistics to the rehabilitation of aphasic children. It may be necessary to review faulty enunciation of aphasic children as due to motor inadequacy of language. If it is true that echolalia is only a more advanced form of babbling there is little to be gained in using it to train a ten-year-old aphasic child. Linguistics can assist speech therapists in selection of materials, the choice of nouns and verbs, use of echolalia or gestures, etc. —M. F. Palmer.

149. TOZER, A. H. D., & LARWOOD, H. J. C. (Univer. of Liverpool) *The changes in intelligence test score of students between the beginning and end of their university courses*. *Brit. J. educ. Psychol.*, 1958, 28, 120-128. A group of 124 university students (67 men and 57 women) admitted pre-war to Liverpool University, who were given the same intelligence test at the beginning and end of their university degree courses, made large and statistically significant gains. These gains do not seem attributable to increase in age and appear unrelated to courses of study taken; they are of the same magnitude as those made on re-test at an interval of a few weeks. Explanations in terms of mental growth, transfer effects and sophistication or practice are discussed. —From Authors' Summary.

150. TRAPP, E. PHILIP, & KAUSLER, DONALD H. (Univer. of Arkansas, Fayetteville) *Dominance attitudes in parents and adult avoidance behavior in young children*. *Child Developm.*, 1958, 29, 507-513. Two hypotheses were tested regarding the relationship between parental attitudes and children's behavior. The first hypothesis stated that nursery school children of parents scoring either high or low on dominance attitude will avoid adult contacts in a free-activity setting to a greater degree than nursery school children of parents scoring in the intermediate range on dominance attitude. The second hypothesis stated that nursery school children of parents reflecting large differences in dominance attitudes will avoid adult contacts in a free-activity setting to a greater degree than nursery school children of parents reflecting small differences in dominance attitudes. The sample consisted of 16 children, of equal sex proportion, with an average age of 4 years and 3 months, and their parents. The USC Parent Attitude Survey was administered to the parents, and the dominance subscale served as the predictor variable. Five-minute time samples, totaling 50 minutes of observation in all, were made on each child. The time spent by a child in adult contact during the observation period served as the dependent variable. The results supported the curvilinear relationship predicted in the first hypothesis at the .05 level. The results also supported the second hypothesis at the .05 level. —Authors' Abstract.

151. TSUMORI, MAKOTA, & INAGE, NORIKO. *Maternal attitude and its relationship to infant development*. *Jap. J. educ. Psychol.*, 1958, 5, 208-218. 120 mothers and their healthy, normal-born infants served as subjects in this study. 30 infants at each age level of 2, 6, 9, and 12 months were selected. Maternal practices were studied by means of an interview, and opinions on child rearing were obtained by asking eight questions about permissiveness and indulgence. Ultimately, the writers assembled all the data under the following seven headings: emotional security, contact with infants, concern with rearing, permissiveness or regulations of children's activity, forms of mothers and infants, intellectuality, previous attitudes of the mothers. At each of the four age levels there was a tendency for superior motor and social development to be related to more contacts with infants and greater permissiveness. This relationship proved significant at the 1% level only in the case of 6-month and 9-month-old infants. In a further study of factors relating to maternal attitudes, no apparent relationship was found between maternal attitudes and socioeconomic status. There was no apparent relationship between maternal attitudes and maternal

opinions. Mothers of first born infants tended to be more permissive than multiparae. The authors conclude that infants tend to develop better when mothers have more contacts with them and are more permissive in their child care. (From English Summary) —A. Grams.

152. TUCKER, LEDYARD R. (Educational Testing Service, Princeton, N.J.) **Determination of parameters of a functional relation by factor analysis.** *Psychometrika*, 1958, 23, 19-24. A theoretical basis is presented for the determination of parameters for many non-linear functional relationships between two variables by means of methods of factor analysis. If the function describing the relationship can be written as a sum of products of functions of the individual parameters and corresponding functions of the independent variables it may be possible to find particular values of the functions of the parameters and of the functions of the independent variables through a factor analysis. Otherwise, an approximate solution may be found. Problems still remaining are indicated. —S. G. Vandenberg.

153. TUCKER, LEDYARD R. (Educational Testing Service, Princeton, N.J.) **An inter-battery method of factor analysis.** *Psychometrika*, 1958, 23, 111-136. A method is proposed which will furnish information about the stability of factors when changes are made in the composition of the test battery. Two batteries of tests which are postulated to be dependent on the same common factors but which contain no parallel tests are administered to the same sample of individuals. Factors are determined from the correlation of the tests in one battery with the tests in the other battery. These factors are limited to those common to the two batteries. No communality estimates are required. A statistical test is provided for judging the minimum number of factors involved. Rotation of axes is carried out independently for the two batteries. A final step provides the correlation between factors determined by scores on the tests in the two batteries. The correlations between corresponding factors are interpreted as reliability coefficients for the factors. —S. G. Vandenberg.

154. VAJNORSKÝ, J., BRACHFELD, K., & STRAKOVÁ, M. **Přispěvek k reflexům novorozeneckého období.** (A contribution to the reflexes of the newborn period.) *Cesk. Pediat.*, 1958, 13, 227-230. A reflex joining in the plantar flexion of the toes as a response to passive dorsal flexion of the large toe is described. 632 children were examined and the reflex was present in 98% of mature healthy infants. Presence in premature infants depended on the degree of prematurity and condition of the infant, and was missing in 12%. The reflex could not be elicited in infants older than 8 months. Consideration of the anatomical-physiological basis of the reflex is made. Its importance for neurological diagnosis in the newborn and young infants will be further studied. —English Summary.

155. WATTS, K. P. (Univer. of Cambridge) **Intelligence test performance from 11 to 18: a study of grammar school girls.** *Brit. J. educ. Psychol.*, 1958, 28, 112-119. This paper deals with a long-term study of the effects of age and practice on the intelligence test performance of grammar school girls. Intelligence testing was conducted annually. The results show that there is continued improvement up to at least seven testings and that this is probably due more to the effects of practice than of age. —From Author's Summary.

156. WAWRZASZEK, F., JOHNSON, O. G., & SCIERA, P. L. (Eastern Michigan College) **A comparison of H-T-P responses of handicapped and non-handicapped children.** *J. clin. Psychol.*, 1958, 14, 160-163. A group of 41 physically handicapped children and a matched group of non-handicapped children were tested with the House-Tree-Person Test followed by a shortened version of Buck's post-drawing interrogation. Ten of Buck's hypotheses regarding the significance of variables on the H-T-P were tested. None of the ten hypotheses was supported by the results of this study although the evidence on one of them was suggestive. —Authors' Summary.

157. WHITEMAN, MARTIN, & JASTAK, JOSEPH. **Absolute scaling of tests for different age groupings of a statewide sample.** *Educ. psychol. Measmt*, 1957, 17,

338-346. Age changes in the Comprehension, Picture Completion, and Digit Symbol subtests of the Wechsler Bellevue Scale of Adult Intelligence were studied in a randomly selected sample of 1980 subjects from the population of the state of Delaware, spread about equally in 27 two-year age groups. Results are presented in tabular and graphical form for ages 10 to 63. When Thurstone's method of absolute scaling was used there was a steady increase in the Comprehension score up to age 45 and only a small decline thereafter. For the Picture Completion test the high point is at age 35 and for the Digit Symbol test at age 25. —S. G. Vandenberg.

158. WILSON, WILLIAM CODY. (Harvard Univer., Cambridge, Mass.) **Imitation and the learning of incidental cues by preschool children.** *Child Developm.*, 1958, 29, 393-397. It is hypothesized that the process of learning to perform an imitated response in an appropriate situation in the absence of the model is essentially that of learning of "incidental" cues. An experiment testing this hypothesis is reported. Preschool children while utilizing a model's response as a primary cue for the performing of that same response did learn, in the absence of instructions, a secondary "incidental" cue for the performance of that response. The learning of a two-choice discrimination problem for preschool children appeared to be more efficient using the imitation method than using the trial-and-error method. —Author's Summary.

159. WINITZ, HARRIS, & IRWIN, ORVIS C. (Univer. of Iowa, Iowa City) **Infant speech: consistency with age.** *J. Speech Hearing Res.*, 1958, 1, 245-249. The consistency of infant speech vocalization with respect to age was investigated from data on file at Iowa Child Welfare Research Station. Pearson product-moment correlation coefficients for phoneme type and phoneme frequency were computed for each pair of odd-numbered age levels from one month to 15 months. Of 56 correlation coefficients obtained only 13 were statistically significant and in only 3 instances did coefficients exceed .50. It appeared then that infants under investigation did not consistently maintain their positional standing in the group. —M. F. Palmer.

160. WINITZ, HARRIS, & IRWIN, ORVIS C. (Univer. of Iowa, Iowa City) **Syllabic and phonetic structure of infants' early words.** *J. Speech Hearing Res.*, 1958, 1, 250-256. The syllabic structure, phonetic structure and vowel and consonant composition were studied at three age levels: 7 months with 23 subjects, 8 months with 35 subjects, and 9 months with 35 subjects. A high percentage of the words were either monosyllables or dissyllables. The vowel sounds varied in relative use at different age levels with the exception of the vowel (a). The labial and postdental sounds constituted more than 80% of the consonant sounds at each age level. A higher percentage of front and back vowels than of middle vowels were used. Approximately 95% of the words were composed of both vowels and consonants. —M. F. Palmer.

161. WRIGLEY, CHARLES, SAUNDERS, DAVID R., & NEUHAUS, JACK O. **Application of the quartimax method of rotation to Thurstone's primary mental abilities study.** *Psychometrika*, 1958, 23, 151-170. This study compares a quartimax rotation of the centroid factor loadings for Thurstone's Primary Mental Abilities Test Battery with factorings of the same correlation matrix by Thurstone (simple structure), Zimmerman (revised simple structure), Holzinger and Harman (bi-factor analysis), and Eysenck (group factor analysis). The quartimax results agree very closely with the solutions of Holzinger and Harman and of Eysenck, and reasonably well with the two simple structure analyses. The principal difference is the general factor provided by the quartimax solution. Reproduction of the factorial structure is sufficiently good to justify its use at least as the first stage of rotation. More extensive trial of the method will be needed with more varied data before it will be possible to decide whether quartimax factors meet psychological requirements sufficiently well without further rotation. —Authors' Abstract.

162. YONE YAMA, HISAE. **On the aggressive behaviors of children.** *Jap. J. educ. Psychol.*, 1958, 5, 200-207. The subjects were 62 boys and girls in a kinder-

garten and 23 infants in two day-nurseries. The children were observed one hour each day for six days during which their aggressive behaviors were recorded by means of a check list. They were then divided into two groups: the aggressive and the non-aggressive. Correlational studies involving physical, physiological, psychological, and social variables were then conducted. The physical factors considered were weather and temperature and no significant relationship obtained between these and aggressiveness. Physiologically there was a tendency for stronger-bodied children to respond with aggressive behaviors, while the weaker-bodied children were all nonaggressive. Intelligence showed no relationship to aggressiveness. Most of the children in the aggressive group appeared to be of the extroversive type, while almost all non-aggressive children were judged to be either neutral or introversive. In the study of social factors, home discipline was found to have the strongest direct relationship to aggressive behavior. Among the children of kindergarten age who came from middle class homes with better environment, the aggressive children more frequently came from homes where the discipline was characterized as over-indulgent and over-interfering. Most of the children in the day-nursery came from economically poor homes and here the influence of social variables was reversed. The aggressive group consisted dominantly of those from "let-alone" type or strict type of homes, and the nonaggressive children were more frequently found among those from over-indulgent type or over-interfering type of homes. (From English Summary) —A. Grams.

163. YOUNG, EDNA HILL. (2342 Scarff St., Los Angeles, Calif.) **A personal experience with speech.** *J. Speech Hearing Disorders*, 1958, 23, 136-142. Miss Young describes her articulatory problem which she believes was due to irregular and inadequate muscular movements in early childhood. She describes the development of her moto-kinesthetic method. Major muscular difficulty was a bilateral incoordination. She then developed a bilateral control but found herself in a great deal of difficulty for many years so far as articulation was concerned. —M. F. Palmer.

164. ZELIGS, ROSE. (Sherman Oaks, Calif.) **Trends in children's New Year's resolutions.** *J. exp. Educ.*, 1957, 26, 133-150. Trends in children's New Year's resolutions, from 1945 through 1948, were studied for the purpose of gaining some understanding of children's daily problems of living and learning in our culture, as revealed in their New Year's resolutions. The 228 11- and 12-year-old children were from suburban middle class homes in Cincinnati, Ohio. The boys and girls were asked to list their New Year's resolutions on the day after New Year's. The data were tabulated and arranged under resolutions pertaining to school, home, parents, conduct, home routines and habits, social relations, health habits, character and personality traits, siblings, food and eating, and patriotism. The children averaged about 8 resolutions per child, the girls averaging more resolutions than the boys. The data show that school plays a vital role in the lives of these children. This is followed by home, parents, and home routines. 68% of all the resolutions covered 32 items. The 10 items given most often, in order of frequency, were: to improve in conduct in school, to improve in schoolwork, have homework on time, not fight with sibling, obey parents the first time, go to bed early, obey teachers, cooperate, help, and respect teachers, not nag, annoy, or contradict parents, stop biting my finger nails. —From Author's Summary and Conclusions.

165. ZILLER, ROBERT C. (Univer. of Delaware, Newark) **A measure of the gambling response-set in objective tests.** *Psychometrika*, 1957, 22, 289-292. A formula is proposed to measure the tendency to guess in objective tests when the subjects have been informed that a corrective for guessing penalizing wrong answers will be applied. Some implications of this measure for test theory are constructed and considered. —S. G. Vandenberg.

166. ZUCKERMAN, MARVIN (Indiana Univer. Medical Center, Indianapolis), OLTEAN, MARY, & MONASHKIN, IRWIN. **Parental attitudes of mothers of schizophrenics.** *J. consult. Psychol.*, 1958, 22, 307-310. 42 mothers of schizophrenic patients were compared with 42 control mothers on the PARI. The hypothesis

that the mothers of the schizophrenics would have more controlling and rejecting attitudes was not confirmed. There was, however, a significant interaction between groups and level of education, with the less educated tending to be more controlling and rejecting. —E. E. Levitt.

167. ZUCKERMAN, MARVIN (Indiana Univer. Medical Center, Indianapolis), **RIBBACK, BEATRICE BARRETT, MONASHKIN, IRWIN, & NORTON, JAMES A., Jr.** Normative data and factor analysis on the parental attitude research instrument. *J. consult. Psychol.*, 1958, **22**, 165-171. Normative data on the PARI were gathered from a sample of 222 normal mothers, 131 mothers of psychiatric patients, and 60 mothers who were psychiatric patients. Education of the mother was most significantly related to scale scores. Three factors were extracted from a factor analysis of the scale: Authoritarian-Control, Hostility-Rejection, and Democratic Attitudes. —E. E. Levitt.

PSYCHIATRY AND MENTAL HYGIENE

168. ADAMSON, WILLIAM C. (Woods Schools, Langhorne, Pa.), **NELLIS, BARBARA P., RUNGE, GRETCHEN, CLELAND, CHARLES, & KILLIAN, EDWARD.** Use of tranquilizers for mentally deficient patients. *Amer. J. Dis. Child.*, 1958, **96**, 159-164. 40 low-grade mentally deficient patients with severe behavior and management problems were included in a double-blind study comparing the effectiveness of chlorpromazine, reserpine, the combination of these two drugs, and a placebo in changing their behavior. The study extended over a period of 380 days. Four approximately matched groups of selected subjects were rotated through four experimental conditions for 60 days each, with a 28-day placebo period between medications. Drug dosage ranged from 3 mg. to 5 mg. per day for reserpine, 300 mg. to 500 mg. per day for chlorpromazine, and 1.5 mg. to 2.5 mg. of reserpine in combination with 150 mg. to 250 mg. of chlorpromazine. The age of the subjects ranged from 8 years to 40 years. Child-care workers on the wards were trained in recording observations on a daily behavior check list for three shifts covering a 24 hour period. Interscorer reliability of check lists was of the order of 0.75 to 0.85. The percentage of subjects in each of the four groups showed clinical improvement from 80% to 100% with chlorpromazine, 70% to 100% with reserpine, and 70% to 90% with a combination of these drugs. A placebo effect ranging from 40% to 70% improvement demonstrated the need for a placebo control group in all research designs concerned with effectiveness of drugs on behavior. This effect seemed to persist up to six weeks, and a period of eight weeks of receiving a specific drug is believed to be minimal for reliable observations on these subjects. Standardized psychometric and social maturity testing before and after periods of medication did not indicate significant changes in intellectual or social functioning in these selected subjects. Drowsiness in 40% to 50% of the subjects was the only major complication. Grand mal seizures occurred in one patient not previously known to have seizures and in one patient with known seizures. White blood cell and differential counts should be done every six to eight weeks for children receiving tranquilizing drugs. —Authors' Summary.

169. APRISON, M. H., & DREW, A. L. (Indiana Univer. Medical Center, Indianapolis) **N, N-dimethyl-p-phenylenediamine oxidation by serum from schizophrenic children.** *Science*, 1958, **127**, 758. An examination of the sera from 23 children, 6 to 13 years in age, 5 female, 18 male, hospitalized because of psychiatric illness, 10 not schizophrenia, 7 schizophrenia, and 6 likely schizophrenia, did not confirm the suggestion that the Akersfeldt-type reaction can be used to differentiate between nonschizophrenic and schizophrenic children.

170. BLUM, LUCILLE HOLLANDER. (17 West 67th Street, New York City) **Not all are definitely defective.** *Ment. Hyg.*, 1958, **42**, 211-223. Data obtained in interviews with the parents of children the writer diagnosed as pseudo-retarded were

analyzed. A finding which seems pertinent to the problem is that two particular kinds of circumstances appear to intensify parental anxiety and consequently to influence pseudo-retardation. The child was either an adopted child or was born into a family where there was a history of mental disorder either organic or functional. Two cases illustrating each of these circumstances are presented. —Author's Summary.

171. BRUCH, HILDE. (Columbia Univer.) **Developmental obesity and schizophrenia.** Psychiatry, 1958, 21, 65-70. The author illustrates with several striking case studies the development of schizophrenic reactions in children and adolescents who have been forced to diet to control obesity. It is pointed out that the symptom (obesity) may be a defense against psychosis. The author warns against hasty recommendations to parents that obese children diet, since overeating may serve to stabilize a tenuous adjustment. —R. Wirt.

172. ELKINS, ELSIE. **The diagnostic validity of the Ames "danger signals."** J. consult. Psychol., 1958, 22, 281-287. 40 child guidance clinic patients were compared with a matched control group on the Ames Rorschach "danger signals" and the Davidson "adjustment signs." Significant differences in the predicted direction were not found for either; the author points out that "nearly half of the (Ames) signs are either characteristically present in a sizable proportion of both normal and clinic cases or else are almost never found in the records of either. Several of the 'danger signs' actually tend to be found significantly more frequently in normal records." —E. Levitt.

173. FELIX, ROBERT H. (National Institute of Mental Health, Bethesda, Md.) **Programs and activities of the National Institute of Mental Health relevant to children and child care.** Amer. J. publ. Hlth, 1958, 48, 133-138. The National Institute for Mental Health is supporting 139 projects concerned with child development and behavior. 32 are the Institute's own projects and others are supported by grants. 36 projects relate directly to school mental health. Brief descriptions are given of many of the studies to show the broad scope of the total program. There are studies dealing with severe disturbance in preschool children, the relationship of temperament to the child's ability to cope with his problems, parental influence on the child's personality, other mother-child relationships, variations in reading ability, etc. Support is available for graduate teaching and traineeships for psychologists, social workers, therapists, and other professionals. A grant-in-aid program is available to the States for developing and expanding community mental health programs. —I. Altman.

174. GLUECK, SHELDON, & GLUECK, ELEANOR. (Harvard Law School) **Working mothers and delinquency.** Ment. Hyg., 1957, 41, 327-352. From previously published research, the authors selected pertinent data and findings amply verified with tables to explore the relationship between gainful employment of mothers and delinquency. "The deleterious influence on the family life and on the children of the mother's working outside the home has become evident in our analysis. As regards the special impact on delinquency this too has emerged. There is evidence of a differential influence of the working mother on family life, on children and on delinquency. There is some suggestion in our data that these influences are more potent when deriving from the mother who works sporadically than from the regularly employed mother. Actually a like proportion of mothers of both delinquents and non-delinquents were found in "Unraveling Juvenile Delinquency" to be regularly employed, but among the delinquents there was found a higher proportion of mothers who worked only irregularly. . . . In all these respects, then, whatever damage to the personality and character of children may result from the fact of the mother's absenting herself from the home in gainful employment is enhanced in the case of the particularly vulnerable ectomorphic child." There is considerable discussion of possible causation and effect and many suggestions for further effort leading to solutions of the crucial problem are presented. —R. L. Witherspoon.

175. GOATES, WALLACE A., & BOSMA, JAMES F. (Univer. of Utah, Salt Lake City) **Disability of speech resulting from malpositioned cervical spine following**

poliomyelitis. J. Speech Hearing Disorders, 1958, 23, 283-293. Poliomyelitic sequelae resulting in cervical spine lordosis and scoliosis have been observed to produce speech disorders, arising from lateral displacement, compression and immobilization of the larynx; distortion, displacement and compression with occlusion of the pharynx, fixation of the mandible and reduction in mobilization of articulatory mechanisms of speech. When the lordosis is relieved speech improves. Speech therapy without the freeing of these structures proved to be unrewarding. —M. F. Palmer.

176. HAND, H. B. (Public School 30, Jersey City, N.J.) **Working mothers and maladjusted children.** J. educ. Sociol., 1957, 30, 245-246. Well adjusted and maladjusted elementary school children selected with the California Test of Personality, teacher ratings, and peer choices were investigated in terms of employment of their mothers. No relationship between adjustment and maternal employment was found. —L. M. Smith.

177. HERREN, RUEDIGER. **Der Mord ohne Motiv Eine moderne Erscheinungsform der Jugendkriminalität.** (Murder without motives, a modern phenomenon of juvenile delinquency.) Psychol. Rdsch., 1958, 9, 273-290. On the basis of several brief case studies the author describes the lack of conventional motives in a large number of recent juvenile "thrill-killers." The psychic structure of the juvenile thrill-killer is discussed in terms of psychoanalytic concepts. Lack of superego development (conscience), or identification with psychopathic gangster leaders and criminals, is considered an important factor in the present phenomenon of murder without motive. Further insight is supplied by case studies of latent juvenile thrill-killers, who because of rudimentary superego strength are able to resist their latent criminal tendencies. According to the author, such cases are surprisingly frequent. In the final analysis the psychopathological impact of cultural conditions such as cultural relativism, laissez-faire permissiveness in education, the rapid decrease of religious and ethical values, and the value free attitude of the natural scientist are related to the topic under discussion. The thrill-murderer can only be understood in view of the Zeitgeist, which is characterized by value-indifference. —R. Muuss.

178. KUNCOVÁ, ZDENKA, & MÜLLEROVÁ, ANĎELA. **Průzkum idioneu-rální dráždivosti u školních dětí.** (A survey of idioneural excitability in school children.) Česk. Pediat., 1958, 13, 328-333. Idioneural excitability was determined in 461 school children by investigation of four signs: Chvostek, radial nerve, ulnar, and peroneal nerves. 75% were positive. There was no statistically significant sexual or age difference. Most frequently, one sign was positive; the ulnar nerve sign was positive twice as often as the others. There was no striking prevalence of the right side. Repeated examination in the fall and spring showed that the results were constant. Of 346 children with positive neurological findings, 149 had neurotic vegetative finding (43%), while of 115 children with negative neurological findings 36 (32%) had neurotic vegetative signs, i.e., markedly greater correlation with positive neurological signs. This test is therefore an indicator of so-called latent spasmophilic neuropathy. —English Summary.

179. LEBO, DELL. **A theoretical framework for nondirective play therapy: Concepts from psychoanalysis and learning theory.** J. consult. Psychol., 1958, 22, 275-279. The nub of this theoretical presentation is that "If age and aggression were evaluated properly, the course of nondirective play therapy would vary with the age of the child and with the character of the psychodynamic processes . . . associated with . . . his problem. Insistence on the sameness of the process, and consequently of the method, may only result in the tautological death of productive work in nondirective play therapy." —E. E. Levitt.

180. LETON, DONALD A. (Univer. of California, Los Angeles) **An evaluation of group methods in mental hygiene.** Ment. Hyg., 1957, 41, 525-533. In order to determine the effectiveness of courses in mental hygiene, an experiment under a uniform set of conditions and with standard instruments of appraisal was conducted for

two consecutive years in four high schools in St. Paul, Minn. The 4 methods studied were: Bullis's human relations classes, mental hygiene movies, sociodrama and role playing, and hobby and craft activities. Adequate sampling and statistical techniques were employed for 8 separate and independent experiments each with its own experimental and control group. The null hypothesis of equal means was rejected in only 6 of 56 analyses of variance and covariance on various criteria of adjustment. While there was some indication of improvements in school adjustment and attendance due to courses in mental health, the Bell Adjustment Inventory, school grades, and The Rogers Test of Personality failed to reflect significant improvements. An evaluation of student opinion and students' general acceptance of each other revealed improvement in these areas favoring those in the experimental groups. The need for a study of long term effects was indicated. —R. L. Witherspoon.

181. LEVITT, EUGENE E. (Indiana Univer. Medical Center, Indianapolis) **Parents' reasons for defection from treatment at a child guidance clinic.** *Ment. Hyg.*, 1958, 42, 521-524. Using the direct approach, experienced psychiatric social workers questioned 142 parents of "defector" cases who had been accepted for treatment at the Institute for Juvenile Research in Chicago but who did not come for treatment when available in order to determine the reason for this common phenomena. About seven years, on the average, had elapsed since these cases had had contact with the clinic. Responses were categorized according to Inman's breakdown plus one new category "dissatisfied with clinic." The three most frequent reasons given were, "never called to come in for treatment by clinic 18.3%, circumstantial interference with treatment arrangements 16.9%," and "mother resistant to treatment for herself 14.1%." A careful record check revealed that only 2 of the 26 reported in the first category (never called) could be valid. In terms of "who was responsible," the clinic was in more than 3 out of 10 cases, while action or attitude of a family member, circumstantial or environmental conditions, and child's improvement accounted for roughly 1 of 5 cases. —R. L. Witherspoon.

182. LOEWNAU, HEINZ WALTER. (Univer. of Kiel, Germany) **Neurotische Fehlhaltung und seelische Reifung im Kindesalter.** (Neurotic disturbances and psychic maturation during childhood.) *Psychol. Rdsch.*, 1958, 9, 170-191. The growth process is considered—in agreement with stage theories of development—as a sequence of maturational phases. It is during the transitory periods, which are characterized by negativism, ambivalence, emotional and in-spite behavior, that psychic dissociations are produced. The author attempts to demonstrate that it is during these transitory phases of developmental readjustment and new orientation that neurotic tendencies increase in intensity to the point of possibly bringing about maturational crises. Four dynamic factors are of greatest therapeutic interest in order to understand the developmental crises of a neurotic child: (1) developmental tendencies in the individual, especially the contributions of maturation to outgrow neurotic symptoms; (2) the degree of vitality and strength as part of the child's personality, e.g., the good prognosis of the sthenic child confronted with that of the asthenic child; (3) the strength of the child's ego functions; (4) the influence of cultural and social environment and the importance of the socialization process. Each of these factors is discussed in the light of psychiatric case study material, illustrated by children's drawings. In his summary the author discusses the factors that contribute to mental health in children: (1) freedom from neurotic tendencies such as fear, hyperactivity, anxiety, and inadequate affective tendencies; (2) an equilibrium between self-assertion and conformity; (3) freedom for spontaneous activity in contrast to the reactive activity of the neurotic child. —R. E. Muuss.

183. McNEIL, ELTON B., & COHLER, J. ROBERT, Jr. (Univer. of Michigan, Ann Arbor) **Adult aggression in the management of disturbed children.** *Child Developm.*, 1958, 29, 451-461. To test the hypothesis that the successful management of hostile situations is a characteristic of adults whose own aggressive needs are the least pressing or under the best control, two measures of fantasy aggression (a Scrambled Sentences Arrangement Test and spontaneous stories in response to four

TAT cards) were administered to a group of counselors prior to their experience in a therapeutic camp for disturbed and delinquent children. Comparisons were made between the degree of aggressive response to these tests and ratings, by their fellow counselors, of success in managing hostile situations. In addition, expert observers rated the handling of 10 hostile incidents for each counselor in terms of counselor effectiveness in resolving conflict and the degree to which the children were able to accept these resolutions of their disputes. Of the two test measures of fantasy aggression in counselors, successful prediction to aggressive behavior occurs more readily using the TAT. Significant relationships exist between the degree of hostility revealed in the TAT, counselor's ratings of one another's clinical skill, and experienced observers' ratings of skill in handling aggressive situations. A positive and significant relationship was discovered between expert and peer judgments of an individual's clinical ability. —Authors' Abstract.

184. MARK, HENRY J., & HARDY, WILLIAM G. (Johns Hopkins Univer., Baltimore, Md.) **Orienting reflex disturbances in central auditory or language handicapped children.** *J. Speech Hearing Disorders*, 1958, 23, 237-242. The onset time of orienting reflex disturbances in 36 children with congenital pathology in the nervous system suggests that in a significant proportion these disturbances emerge as late as the third or fourth year of life. Early detection therefore may prevent deterioration of sound awareness by methods ranging from simple educational techniques to laboratory procedures for facilitating disinhibition. —M. F. Palmer.

185. MASLAND, RICHARD L. (National Inst. of Mental Health, Bethesda, Md.) **The prevention of mental retardation: A survey of research.** *Amer. J. ment. Def.*, 1958, 62, 991-1112. The article summarizes the present status of knowledge in areas of research relevant to study of the prevention of mental retardation and suggest new areas and approaches which might be fruitful lines of inquiry. The report covers the areas of pathological studies of mental defectives, prenatal, perinatal and postnatal causes and central nervous system regeneration. The bibliography lists 330 publications basic to the report. Four appendices give material relevant to the problem of incidence, report current research programs at various institutions and colleges and list state schools and hospitals for the mental defective along with the medical centers closest to the institution. The extensive survey was sponsored by the National Association for Retarded Children. —E. Deno.

186. MENDELL, DAVID (Baylor Univer.), & **FISHER, SEYMOUR.** **A multi-generation approach to treatment of psychopathology.** *J. nerv. ment. Dis.*, 1958, 126, 523-534. Results are given by case illustration of the authors' method of group therapy with family members of disturbed patients. Data are present which represent examples of extensive interview and projective test material for more than 50 families, including 17 families in which such information was available for either three or four generations of a patient's family. The authors find common themes of psychopathology running through all branches of these families. The family members that are judged to be most likely to represent channels for influencing the family group are seen for treatment. Frequently this procedure involves persons other than the original patient. The authors find this approach provides a means for introducing new forces into the family matrix which will restore equilibrium. —R. Wirt.

187. OLIVER, J. N. (Univer. of Birmingham) **The effect of physical conditioning exercises and activities on the mental characteristics of educationally subnormal boys.** *Brit. J. educ. Psychol.*, 1958, 28, 155-165. Two matched groups of educationally subnormal boys were used as experimental and control groups to determine the effects of a 10-week course of systematic and progressive physical conditioning on the experimental group. Both groups were given physical and mental tests before and after the experimental period. The results show that the improvement by the experimental group in physical qualities and abilities was highly significant; significant improvement on the mental tests also occurred. The factor most responsible for the improvement on the mental tests is probably largely emotional. It is likely to be a

combination of (a) the effect of achievement and success, (b) improved adjustment, (c) improved physical condition, and (d) the effects of the new feelings of importance. It is suggested that more emphasis be given to the physical education of educationally subnormal boys. —From Author's Summary.

188. ROACH, JACK L., GURRLIN, ORVILLE, & HUNT, RAYMOND G. **Some social-psychological characteristics of a child guidance clinic caseload.** J. consult. Psychol., 1958, 22, 183-186. A study of the caseload at the Buffalo Guidance Center indicates that 72% of the cases seen were males, that Jews were over-represented and Catholics under-represented in the population, and that aggressive symptoms were the predominant ones. The outstanding finding is that the clinic population tended to be drawn primarily from a white, Protestant group of middle to high socioeconomic status. —E. E. Levitt.

189. RUSSELL, I. L. (Southern Illinois Univer., Carbondale) **Behavior problems of children from broken and intact homes.** J. educ. Sociol., 1957, 31, 124-129. A sample of 348 children studied at the Child Guidance Clinic of Southern Illinois University was divided into those from intact homes and those from homes broken by death, and those broken by divorce or separation. Groups were matched on CA, sex, race, and IQ. More behavior problems, especially lying and stealing, were found in the broken home groups. In general, more symptoms occurred among those homes broken by divorce rather than death. —L.M. Smith.

190. SARASON, SEYMOUR D. (Yale Univer., New Haven, Conn.), & GLADWIN, THOMAS. **Psychological and cultural problems in mental subnormality: A review of research.** Amer. J. ment. Def., 1958, 62, 1115-1307. A summary of the literature on a variety of topics centering around the character of intelligence, problems of diagnosis, the relation of cultural factors to diagnosis, the condition of retardation and problem-solving abilities, along with specific recommendations regarding further research and its implementation comprises a report aimed at providing a basis for research planning in this area. A 303 item bibliography rounds out the resource. The work was sponsored by the National Association for Retarded Children. —E. Deno.

191. SARASON, SEYMOUR B. (Yale Univer., New Haven, Conn.), & GLADWIN, THOMAS. **The severely defective individual.** J. nerv. ment. Dis., 1958, 126, 64-96. The authors give an extensive, well documented review of the literature on the relationship between psychosis and severe mental defect. Their report includes all of the classical studies in this area from the time of Itard. —R. Wirt.

192. SHAPIRO, ALVIN P. (Univer. of Pittsburgh School of Medicine, Pittsburgh, Pa.), & MELHADO, JULIAN. **Observations on blood pressure and other physiologic and biochemical mechanisms in rats with behavioral disturbances.** Psychosom. Med., 1958, 20, 303-313. Rats were exposed to different types of conditioning procedures, which were designed to evoke chronic anxiety, and the effects on blood pressure and heart weight were investigated. Gastric and thyroid function, and changes in adrenal size were also studied. Chronic organic disease did not develop in the animals in any of the studies. There was evidence, however, that existing hypertensive vascular disease could be aggravated. The results suggest that Cannon's "emergency response" and/or the general adaptation syndrome may not constitute adequate etiologic hypotheses for chronic psychosomatic disease and indicate the need for greater empiricism in psychophysiology research. —Authors' Summary.

193. TARIAN, GEORGE. (Univer. of California School of Medicine, Los Angeles), WRIGHT, STANLEY W., KRAMER, MORTON, PERSON, PHILIP H., Jr., & MORGAN, RICHARD. **The natural history of mental deficiency in a state hospital.** Amer. J. Dis. Child., 1958, 96, 64-70. Data are presented on selected characteristics of patients admitted to a hospital for the mentally deficient. The patients were followed for a four-year period, and relationships of clinical diagnosis, age, and intelligence quotient to death and live release were analyzed. The implications of

these data in the counseling of parents and in the development of treatment programs are discussed. Reports on the other facets of the natural history of mentally deficient patients are planned for the future. —Authors' Summary.

194. ZOLIK, EDWIN S. (Marquette Univer.) **A comparison of the Bender Gestalt reproductions of delinquents and non-delinquents.** *J. clin. Psychol.*, 1958, **14**, 24-26. The author hypothesizes that the Bender-Gestalt test performance of delinquents and non-delinquents will differ significantly when maturational and intellectual facts are held constant. 43 adolescent delinquents were matched with 43 non-delinquents according to age, Otis IQ and absence of motor defect. The mean age of the control group was 15.95 years and that of the delinquent group, 16.12 years. The mean Otis IQ for the control and delinquent groups was 105.28 and 101.65, respectively. The author scored each Bender-Gestalt protocol according to the Pascal and Suttell method. Individual figure scores as well as total protocol scores were utilized. The analysis of the data indicated that a response such as asymmetry significantly differentiated the two groups on the three figures where it is scored. Other responses such as dots, dashes and circles significantly differentiated the two groups on the two of the three figures where this deviation was scored. A tremor response significantly differentiated the two groups on two of the four figures where this deviation is scorable. Other responses such as second attempt, wavy line, dashes and extra angles revealed significant differences for single figures. The author considers these significant differences to be valid and the Pascal and Suttell scoring method of the Bender-Gestalt test useful in differentiating between delinquents and non-delinquents. He further suggests a different range (50 to 60 in place of 50 to 72) in order to increase diagnostic prediction. —A. M. Kaplan.

PUBLIC HEALTH AND HYGIENE

195. BAUMGARTNER, LEONA (New York City Dept. of Health), & **PAKTER, JEAN.** **Challenge of fetal loss, prematurity, and infant mortality—assessing the local situation.** *J. Amer. med. Ass.*, 1958, **167**, 936-944. Statistics for New York City on maternal and infant mortality are discussed. Although maternal mortality has dropped to 5 cases per 10,000 live births, it is believed the irreducible minimum has not been reached, since many causes are still preventable. Recent progress in the reduction of infant mortality has been slight, with a statistically significant rise being noted in 1955, the last year studied. Incidence of prematurity also showed a significant rise in 1955. Incidence of prematurity and fetal and infant death rates varied greatly with socioeconomic status. Conditions in some hospitals were "found to be not conducive to the best care for mother and child." Problems calling for enlarged and coordinated research are pointed out, with special attention to the problems created by immigration into the city of large numbers of underprivileged people. —I. Altman.

196. BIERMAN, JESSIE M. (Univer. California School of Public Health, Berkeley) **Maternal and child health in the developing countries—progress, problems, and promise.** *Amer. J. publ. Hlth*, 1958, **48**, 888-897. Progress to date by WHO and UNICEF in assisting governments to improve their maternal and child health services is described. Professional training has been given through 601 fellowships for study abroad. 40 demonstration and training projects have been carried on in 29 countries, and assistance has been given to 64 institutions in 37 countries for training personnel, with special emphasis on the training of auxiliary personnel. Epidemiologic methods for the study of health problems are being introduced, as well as the problem-centered technique, in the development of training and service programs. Interest in school health is growing. A comparison is shown for 27 selected countries of reported neonatal and infant mortality rates. —I. Altman.

197. BUELL, BRADLEY, BEISSER, PAUL T., & WEDEMEYER, JOHN M. (San Mateo, California) **Reorganizing to prevent and control disordered behavior.**

Ment. Hyg., 1958, 42, 155-194. In order to determine the most functional plan for the prevention and control of disordered behavior in San Mateo County, California, the 72 agencies providing Welfare, Health and Adjustment Services to families reported on a detailed schedule the problems encountered during January 1954. Each month thereafter the 10 agencies dealing with disordered behavior reported on all new cases. This cumulative incidence amounted to 11,000 families by the end of 1956. Adult disorders accounted for 76% of the total. Detailed analyses of the data are presented as evidence for the reorganization of services into "San Mateo's" plan. "The factors of greatest strategic importance are these: a clear definition, identification and analysis of the community problem of disordered behavior; the avowed orientation of program objectives toward prevention and control; the common systematization of basic recording and therapeutic process toward this end by the agencies mainly responsible for the program; the guidance of these processes and the evaluation of performance by representatives with broad community interests. From these, the form and shape of a more positive, workable, preventive program can emerge in any community with leadership sufficiently dedicated and competent to undertake it." —R. L. Witherspoon.

198. ELIOT, MARTHA M. (Harvard Univer. School of Public Health, Boston, Mass.) **Deaths around birth—the national score.** J. Amer. med. Ass., 1958, 167, 945-949. A comparison of the mortality figures for 1915 with those for 1955 shows that during this interval both maternal and infant mortality rates have been strikingly reduced. Maternal deaths have been reduced from 60 to 5 per 10,000 live births, and the infant mortality rate has dropped from 100 to 26 per 1000. Further reduction is possible and necessary, for the frequency of perinatal and maternal losses was fourth among main causes of death at all ages in 1955 in the United States. The causes of perinatal mortality need to be identified because they must also be the causes of congenital handicaps in millions of infants who do not die. Differences in mortality between urban and rural patients and between different socioeconomic strata prove the importance of environmental factors. Preventing prematurity and improving the care of premature infants are among the immediate problems. For continued progress in the reduction of perinatal mortality it will be necessary to make sure that children who are to be the parents of the future grow up as members of healthy families in the best possible environment. —Journal Summary.

199. EMERY, MARGARET. (Children's Bureau, Washington, D.C.) **Provisions for the protection of children in Belgium and Sweden.** Social Security Bull., 1958, 21(6), 7-13. Protective legislation and procedures in Belgium and Sweden are described. There is a distinct difference of approach in the two countries; in Belgium, the primary agencies for the protection of children are the courts, while Sweden employs administrative agencies without any court procedures. The program in Belgium is reported rather fully, with the program in Sweden to be described later. —I. Altman.

200. GLASSER, MELVIN A. (National Foundation for Infantile Paralysis, New York City) **A study of the public's acceptance of the Salk vaccine program.** Amer. J. publ. Hlth, 1958, 48, 141-146. The National Foundation for Infantile Paralysis undertook a study in early 1957 to determine why many people were not seeking vaccination for their children and themselves. Some 3,500 interviews were conducted on a nation-wide basis. It was found that nearly 3 out of 5 children under seven and 2 out of 5 teen-agers had one or more polio shots; in age group 7 to 12, 3 out of 4 had received at least one inoculation. Failure to be vaccinated was not due to specific resistance but to a "lack of definite, positive influences which might direct them to a clinic or doctor's office for inoculations." Many parents of teen-agers believed the latter were not very susceptible. Confusion existed as to the availability of vaccine. Cost seemed to be only a mild deterrent, but an association was indicated between vaccination and educational and social level. Influence and attitude of the family physician was of key importance. —I. Altman.

201. KLEIN, MILTON D. (Bronx County Medical Society, New York), & CLAHR, JACOB. **Factors in the decline of maternal mortality.** *J. Amer. med. Ass.*, 1958, 168, 237-242. Maternal mortality per 10,000 live births has decreased in Bronx County from 16.3 in 1946 to 7.2 in 1956. Greatest decrease has come about in deaths from infection, 80%. Deaths from anesthesia have declined by 65%; there have been no deaths from spinal "shock" since 1952. Toxemia has shown a 43% decrease. Hemorrhage, the most frequent cause of maternal death, has decreased by 24%. Reasons for these and other decreases are discussed, including the availability of blood banks, the development of antibiotics, newer methods of anesthesia, and generally better obstetric control. —I. Altman.
202. LAPOUSE, REMA (Univer. of Buffalo School of Medicine, New York), & MONK, MARY A. **An epidemiologic study of behavior characteristics in children.** *Amer. J. publ. Hlth*, 1958, 48, 1134-1144. Purpose of this pilot study was to explore methodology for developing more objective means of delineating and defining the prevalence and interrelations of certain behavior characteristics of children. An interview schedule covering interpersonal and social behavior, intellectual behavior, body control and coordinative behavior, habits, physical handicaps, fears and anxieties, etc., was tried on a sample of 482 children in families selected systematically from the Buffalo City Directory. Two significant findings are reported: "The first is that for a representative sample of children, mothers report a high percentage of behavior commonly thought of as pathological. The second is that mothers' reports in comparison with children's tend to err in the direction of underenumeration, suggesting that the prevalence of the reported behavior may be even higher than the data disclose. This raises for serious consideration the question whether these characteristics are truly indicative of psychiatric disorder or whether they occur as transient developmental phenomena in essentially normal children. We hope that our further studies will contribute some clarification of this important issue." —I. Altman.
203. LICHTY, JOHN A. (Univer. of Colorado Medical School, Denver) **Reciprocal benefits from combining academic pediatrics with the child health programs of a health department.** *Amer. J. publ. Hlth*, 1958, 48, 898-902. A consistently poor neonatal mortality record in Colorado gave impetus to a program for acquainting medical students with the benefits of public health. A pediatric consultant is furnished to the university hospital by the State health department. In turn, teaching teams from the medical school have presented one-day refresher courses in community hospitals where problems have developed. Studies of heart disease among school children of diphtheria and appendicitis have served as teaching material. —I. Altman.
204. LOW, SETH. (Children's Bureau, Washington, D.C.) **Financing public child welfare services.** *Social Security Bull.*, 1958, 21(7), 8-15; 29. In the year ended June 30, 1956, an estimated \$145 million were spent for child welfare services by state and local public welfare agencies. Foster care payments constituted nearly three-fourths of all reported public child welfare expenditures, most of the remainder being devoted to professional services. However, the States vary widely in relative amount and distribution of expenditures. "Fiscal effort and per capita expenditures, and the share of total expenditures devoted to foster care, are greatest in the Northeast, the most urban States, and the highest-income States; they are lowest in the South, the most rural States, and the lowest-income States. The States with the highest proportions of children have the lowest per capita expenditures. These financial inequalities between States have been moderated somewhat by the method of distributing Federal funds. As a result of the allocation of these funds on the basis of rural child population, the Federal share of State expenditures for professional and facilitating services is largest in the South, the lowest income States, and the States with the highest child dependency ratios—State characteristics all correlated with rurality." —I. Altman.
205. MERRILL, MALCOLM H. (California Department of Public Health, Berkeley), HOLLISTER, ARTHUR C., GIBBENS, STEPHEN F., & HAYNES, ANN W.

Attitudes of Californians toward poliomyelitis vaccination. Amer. J. publ. Hlth, 1958, 48, 146-152. The California State Department of Public Health conducted a household survey of the attitude toward polio vaccination in the summer of 1956. The sample comprised 3,628 households, about one in every 1,200 in the State. Responses among 1,719 mothers were classified in three groups: 81% favorable, 11% unfavorable, and 8% neutral. The unfavorable group were characterized by lower socioeconomic and educational status, a tendency to act as their friends acted, failure to have their children immunized against other communicable diseases. Vaccination of children was strongly correlated with the attitudes of their mothers. Similar responses were obtained from a sample of adults drawn from the same households. Since the survey was made midway in the immunization program, its results could be utilized by the State and local health departments in program planning and in improving administrative practices and health education activities. —I. Altman.

206. NYKLÍČEK, OTAKAR. **Hodnocení zúžené perinatální úmrtnosti za poslední tři roky v kraji Hradec Králové.** (Evaluation of restricted perinatal death rate from the past three years from Hradec Králové County.) Česk. Pediat., 1958, 13, 531-538. A clinical and pathological-anatomical analysis of a so-called "restricted" perinatal mortality in Hradec Králové county for the years 1954-1956 is presented. A "restricted" mortality indicates the sum of two groups: natal mortality (subdivisions: prepartum and intrapartum) and mortality to the third day (with a separate subgroup of mortality on the natal day). 506 deaths from 28,465 births make up the analysed group. From an analysis of the two subgroups of natal mortality and three-day mortality conclusions and suggestions for further work are arrived at. From the aetiopathogenetic standpoint this type of division of perinatal mortality gives a true picture of the natural hazards associated with adnatal phenomena, while mortality after the third day is usually associated with external phenomena such as infection. —English Summary.

207. ROSENFELD, LEONARD S. (Community Health Ass., Detroit, Mich.), & DONABEDIAN, AVEDIS. **Prenatal care in Metropolitan Boston.** Amer. J. publ. Hlth, 1958, 48, 1115-1124. Purpose of this study was to test a self-administered questionnaire for collecting information about prenatal care in the community at large. The questionnaire was distributed on the second or third postpartum day to all mothers who were delivered during one month in a selected group of hospitals representing 98% of all births in the selected area of Boston. Of 799 births, usable schedules were received from 609. The questionnaires covered the prenatal care received, health education, dental care, and similar items. Distinct correlations were observed between most aspects of prenatal care and the socioeconomic class of census tracts of residence, family income, and education of the respondent. A higher proportion of private patients than clinic patients reported that their care was satisfactory. Comparison of information with medical records showed the questionnaire data to be reasonably valid. A satisfactory socioeconomic classification of families may be obtained by using average census tracts characteristics in place of social and economic information obtained from individual respondents. "The marked variations in adequacy of prenatal care among the various groups in the community, as found in this study should be a source of concern to hospitals, public health organizations, and the medical profession." —I. Altman.

208. SHAPIRO, SAM (Health Insurance Plan of Greater New York, New York City), WEINER, LOUIS, & DENSEN, PAUL M. **Comparison of prematurity and perinatal mortality in a general population and in the population of a prepaid group practice, medical care plan.** Amer. J. publ. Hlth, 1958, 48, 170-187. Records for 1955 of the Health Insurance Plan of Greater New York (5,511 live births, 73 fetal deaths, and 54 infant deaths) and of the New York City Health Department (10% sample of live births, 20% sample of fetal deaths, and all infant deaths) were compared. In both groups, about two-thirds of the women under private care started prenatal care during the first trimester. The New York City rates for prematurity were 7.7 per 100 live births for whites and 11.4 for nonwhites, as compared with

6.9 and 10.8 in HIP. The perinatal mortality rate for New York City was 38.1 per 1,000 live births and fetal deaths. The corresponding figure for HIP, after adjustment to take account of differences in age and ethnic group, was 23.9. The findings suggest that the lower perinatal mortality rate in HIP is not explained entirely by socioeconomic differentials. A possibility raised by the authors is that the rate might be affected by the greater availability of diplomates in obstetrics-gynecology in HIP than in the city generally. Management of pregnancy under group practice of medicine in HIP versus solo practice may also be a factor. —I. Altman.

209. VERHOESTRAETE, LOUIS J. (Pan American Sanitary Bureau, Washington, D.C.), & **PUFFER, RUTH R.** **Challenge of fetal loss, prematurity, and infant mortality—a world view.** *J. Amer. med. Ass.*, 1958, **167**, 950-959. Large differences exist among countries in losses due to prematurity, neonatal mortality, and deaths in early childhood. Death rates in the age group 1 to 4 years are very high in economically underdeveloped areas. A three-pronged attack is outlined: (a) the establishment and strengthening of basic public health services in these poorer countries, with special attention to maternal and child health; (b) reduction in prenatal and neonatal mortality through such measures as improved prenatal care and improved treatment of premature infants; (c) an intensive program of research aimed at the identification and correction of the factors that may handicap a child in its intrauterine or its postnatal growth. —I. Altman.

210. WALLACE, HELEN M. (Univer. of Minnesota School of Public Health, Minneapolis), **HARTMAN, EVELYN**, & **WECKWERTH, VERNON.** **Health problems of infants and preschool children: report of a study.** *Amer. J. publ. Hlth*, 1958, **48**, 1145-1152. Objectives of this study were to determine (a) the most frequent types of problems encountered in infants and preschool children attending Well Child Conferences, (b) the pattern of attendance at such a Conference, and (c) how such information could be used in planning health services for this group. Mortality data were obtained from death certificates for this group in Minneapolis for the years 1952-1956. Morbidity data were obtained through physicians in the Well Child Conferences. Major causes of death in this group were found to be congenital malformations, accidents, pneumonia and influenza, and cancer and leukemia. Morbidity data, counted in terms of identified health problems, showed that 29.4% of the children had one health problem, 6.7% had two problems, and 0.6% had three. The most common health problems, in order, were skin disease, respiratory disease, cardiovascular, orthopedic, genitourinary, allergy, and nutrition. Attendance at the Conference was lowest in infants and preschool children over 36 months old; the late preschool drop off was greater in the non-white. Previous conference appointment was missed by 16%, acute illness being the most frequent cause. Uses of the data in program planning are discussed. —I. Altman.

211. Study of perinatal mortality and morbidity programs in the United States. Part I. Philadelphia neonatal mortality study. *J. Amer. med. Ass.*, 1958, **167**, 1124-1127. Cooperating in this continuing study are the Philadelphia Department of Public Health, the Philadelphia County Medical Society, and other medical organizations. Neonatal deaths reported by hospitals are studied by a joint committee and rated preventable, nonpreventable, or unclassifiable. A yearly report of findings is sent to each hospital administrator; assistance is offered to hospitals with rates higher than the city average. Professional education and training courses are being developed. Analysis of 1953 data shows that 70% of the neonatal deaths were in premature infants. 90% occurred in the first week and 50% on the first day. Among the individual hospitals, the rates ranged from 8.4 to 44.6 neonatal deaths per 1000 live births. "Injury at birth" accounted for over one-fourth of the total. Prematurity was the second highest cause (22%) and postnatal asphyxia and atelectasis the third (20%). This is the first of a series of articles prepared by the Committee on Maternal and Child Care of the Council on Medical Services, American Medical Association, on perinatal morbidity and mortality study programs that are being conducted in various parts of the United States. —I. Altman.

- 212. Study of perinatal mortality and morbidity programs in the United States. Part 2. Philadelphia study of fetal deaths.** J. Amer. med. Ass., 1958, **167**, 1252-1254. The study of fetal deaths is part of a total continuing perinatal study in Philadelphia. "A fetal death is defined as one in which there is no evidence of life after complete birth (no breathing, no action of heart, no movement of voluntary muscle)." Fetal deaths occurring after 16 or more weeks of gestation are included in the study. Review by a committee of 1000 reported cases found 302 classified as preventable. Of these 302 cases, 31.7% were associated with prolonged labor and 19.8% with acute toxemia; responsibility for 201 cases were ascribed to the patient because of failure to seek prenatal care. The fetal death rate in Philadelphia shows a marked drop since 1937, from 32.7 deaths per 1000 live births to 22.1. —I. Altman.
- 213. Study of perinatal mortality and morbidity programs in the United States. Part 3. Hennepin County (Minnesota) perinatal mortality study.** J. Amer. med. Ass., 1958, **167**, 1523-1525. The methods of this study are described. All hospitals voluntarily report each perinatal death to the Hennepin County Perinatal Mortality Study Committee on a standard questionnaire study form. Each case is judged preventable, nonpreventable, or unclassifiable. Data for the first three years, 1952-1954, show that 72.4% of 1012 neonatal deaths occurred among premature infants. Of the total deaths, 7.3% were judged to have preventable factors and improvement in care was thought to have been possible in another 17%. By the third year of the study, the autopsy rate had increased to 69.7%. (Note: Similar studies in various parts of the United States are described in succeeding issues of J. Amer. med. Ass.) —I. Altman.

HUMAN BIOLOGY AND DEMOGRAPHY

- 214. CHILDS, B. (Johns Hopkins Hospital, Baltimore, Md.), ZINKHAM, W., BROWNE, E. A., KIMBRO, E. L., & TORBERT, J. V. A genetic study of a defect in glutathione metabolism of the erythrocyte.** Bull. Johns Hopkins Hosp., 1958, **102**, 21-37. Erythrocytes of certain Negroes have been unusually sensitive to hemolysis by primaquine in vivo. In addition, incubation with acetyl phenylhydrazine (APH) has caused a marked decrease in the reduced glutathione (GSH) content of these erythrocytes. The fundamental metabolic defect has been assumed to be, by some, loss in activity of the enzyme glucose-6-phosphate dehydrogenase. Genetic study appeared to indicate that this primaquine sensitivity of the erythrocytes was a genetically determined characteristic, the mode of inheritance being that of sex-linkage with incomplete dominance and variable expression. Previous studies had suggested that this inborn abnormality predisposed to development of hemolytic anemia from administration of other drugs such as sulfanilamide and acetanilide. A survey of randomly selected Negroes showed the incidence of primaquine sensitive individuals to be 14% among males and 2% among females. About 5% of the females showed partial sensitivity. Distribution of reactors in families with positive histories for hemolytic episodes following ingestion of fava beans also suggested sex-linkage with incomplete dominance and variable expression. —W. W. Sutow.
- 215. de GROUCHY, JEAN, & SUTTON, H. ELDON. (Univer. of Michigan, Ann Arbor) A genetic study of B-aminoisobutyric acid excretion.** Amer. J. hum. Genet., 1957, **9**, 76-80. Urinary excretion of BAIB was studied in 91 individuals of Chinese and Japanese ancestry including 17 families with a total of 30 children. Various statistical analyses made give support to the theory of hereditary determination of urinary BAIB excretion. The data do not support the hypothesis of a two-allele system acting independently of other genetic or nongenetic factors. The variation observed could result from a small number of genes. —S. G. Vandenberg.
- 216. FRACCARO, M. (State Inst. Human Genetics, Upsala) A contribution to the study of birth weight based on an Italian sample twin data.** Ann. hum. Genet., 1957, **21**, 224-236. The data for 229 pairs of twins come from the same clinic; they

refer to the years 1932 to 1951; stillbirths are included. The incidence of twins in the clinic population was 1 : 60; in the Italian population about 1 : 80; in the whole of Pavia 1 : 70 in 1955. Variables studied were maternal age and parity, gestation time, birthweight and "survival," survivors being infants that left the clinic alive, at any time between 5 and 20 days. "Both survivors" had a higher mean birthweight than pairs of which one died, and those than pairs of which both died. The birthweight computed to give least mortality was, to the nearest gram, 2844 for twins of like sex and 3397 for twins of unlike sex, both far above actual mean weights even where both survived. Twins of like sex, 153 pairs of which 81 were monozygotic, had a higher mean birthweight and longer gestation, their mothers were younger and their birth order was lower than those of pairs of unlike sex. —I. Leitch (Nutrition Abstr., 28:949).

217. GARTLER, STANLEY M., FISCHER, I. L., & KRAUS, B. S. (Univer. of Washington, Seattle) **An investigation into the genetics and racial variation of BAIB excretion.** Amer. J. hum. Genet., 1957, 9, 200-207. Urinary BAIB excretion was studied in an Apache Indian (Arizona) and a Black Carib (British Honduras) population. Both populations exhibited bimodal distributions, though with considerable overlap between the two modes. The family data from the Black Carib population was shown to be in good agreement with a monogenic hypothesis, and the combined results were taken to indicate that the major source of genetic variation underlying BAIB excretion is due to genetic differences at one locus. Possibly modifying forces causing overlap and continuity of the BAIB distribution, and the value of the BAIB excretion variable in anthropo-genetic investigations, were discussed. —Authors' Abstract.

218. HEWITT, D. **Some familial correlations in height, weight and skeletal maturity.** Ann. hum. Genet., 1957, 22, 26-35. In the course of the Oxford Child Health Survey, repeated observations of height, weight and skeletal maturity were made on pairs of sibs from about 90 different families over periods of up to 5 years from the time each child was 6 months old. Each measurement was expressed as a normal deviate, so that it showed the child's development relative to the mean of all children of the same sex and age in the survey, and to the spread in values among them. From the normal deviates obtained at different ages, average measures of relative height, weight and skeletal maturity were obtained for each child, and sib-sib correlations were calculated from these. The correlations for height and weight were slightly above the value of $+0.50$ expected from simple genetical hypotheses; the excess could be explained by a slight degree of assortative mating. Study of the trends with age in the individual normal deviates showed that there was a tendency, significant for skeletal maturity, for them to go up or to go down for both sibs in each pair, which is thought to show that there are genetically controlled differences between children in the pattern of their growth. The correlations between the heights of the children and of their parents were lower than had been expected, and the departure from expectation is attributed to differences in stage of maturity among the children. Multiple correlation coefficients, taking the skeletal maturity of the children into account, were close to the theoretical values. Study of the correlations between the heights of the children and the skeletal maturity of the children and their sibs suggested that there might be sex linkage of some genes affecting both height and rate of maturation, but otherwise the results were consistent with simple autosomal inheritance of the three characters which were measured. —I. McDonald (Nutrition Abstr.; 28:3987).

219. KEAY, A. J. (University of Edinburgh, Scotland) **The significance of twins in mongolism in the light of new evidence.** J. ment. def. Res., 1958, 2, 1-7. A summary from the literature of the records of mongolism in twins; 162 pairs are included but the zygotic type is unknown in 49 of these. No satisfactory report of mongolism in one member only of a monozygotic pair exists. It was found that the incidence of monozygotic mongol twins is lower than theoretical calculations would indicate. Possible explanations for this seeming discrepancy are suggested. Further

research is suggested on both the possibility of discordance in monozygotic pairs and on fetal loss in concordant pairs. —(Rehabilit. Lit., 19:1235).

220. NORWOOD, W. DAGGETT. (Hanford Atomic Products Operation, Richland, Wash.) **Common sense approach to the problem of genetic hazard due to diagnostic radiology: Report based in part on study of exposure in a small American industrial city.** J. Amer. med. Ass., 1958, 167, 1928-1935. Evidence indicates that genetic damage to the human gonads due to exposure to ionizing radiation is greater than previously thought. Experience in Richland, Washington, is described with the intent "to present a common sense approach to limiting exposure to the gonads without sacrificing the tremendous value of diagnostic x-rays." All x-ray diagnostic procedures performed over a four-year period were tabulated—about 85,000 examinations. Measurement of gonad exposure dose was made by means of "phantoms." It was found that examination of the low part of the back and hips constituted only 6% of the total number of examinations but contributed 77% of the total dose to the gonads. The ratio of diagnostic radiation exposure to natural radiation exposure in the first 30 years of life was calculated to be .44. Measures have been taken by the hospital, where 90% of gonad exposures originated, to reduce exposure by an estimated one half. Other measures are recommended, such as shielding the gonads of male applicants for employment during the routine x-ray of backs. The list of references contain 31 items. —I. Altman.

221. OSBORNE, RICHARD (Inst. for Study of Human Variation, Columbia Univer., New York City), & ADLERSBERG, DAVID. **Serum lipids in adult twins.** Science, 1958, 127, 1294. A determination of total serum cholesterol, cholesterol esters, and phospholipids on 82 twin pairs, 18 to 55 years in age, monozygotic and dizygotic, living together and apart, demonstrated importance of both genetic and environmental factors in the regulation of lipid levels in serum.

222. ROYCE, JOSEPH R. **Factor theory and genetics.** Educ. psychol. Measmt, 1957, 17, 361-376. A theoretical framework relating the study of behavior to conceptions in modern genetics is presented. —S. G. Vandenberg.

223. SACHS, LEO, & BAT-MIRIAM, MARIASSA. (Weizmann Institute, Israel) **The genetics of Jewish populations. I. Fingerprint patterns in Jewish populations in Israel.** Amer. J. hum. Genet., 1957, 9, 117-126. The fingerprint patterns of 500 Jewish males in each of eight groups were examined for frequencies of whorls, loops and arches on the ten fingers. The groups were random samples of populations from Bulgaria, Egypt, Germany, Iraq, Morocco, Poland, Turkey, and Yemen, chosen to represent historical migrations. The analysis of the 40,000 fingerprints shows strong similarities for all populations for these hereditary traits. Comparison with results of other studies indicates that Jews and other Eastern Mediterranean populations such as Egyptian Copts have similar frequencies as have groups residing since long ago in Europe and America. —S. G. Vandenberg.

224. SCHULL, WILLIAM J., & NEEL, JAMES V. (Univer. of Michigan Medical School, Ann Arbor) **Radiation and the sex ratio in man.** Science, 1958, 128, 343-348. An analysis of new data concerning the sex of children born to the survivors of the atomic bombings of Hiroshima and Nagasaki, together with a reanalysis of the data previously presented by Nell and Schull . . . , reveals significant changes in the sex ratio of these children, changes in the direction to be expected if exposure had resulted in the induction of sex-linked lethal mutations. . . . —Authors' Summary.

225. STERN, CURT. (Univer. of California, Berkeley) **The problem of complete Y-linkage in man.** Amer. J. hum. Genet., 1957, 9, 147-166. A detailed review of the evidence regarding 17 traits regarded as possibly due to completely Y-linked genes led to the exclusion of some pedigrees. The remaining pedigrees can be accounted for by assuming unusual sex distribution of an autosomal dominant gene or by assuming in addition sex limitation. For a few pedigrees the latter assumption has a small probability and "the final decision must await more data." The general

tenor of the paper is that there is no good evidence for the occurrence of this type of inheritance in man. —S. G. Vandenberg.

226. TASHIAN, RICHARD E., & GARTLER, S. M. (Univer. of Michigan, Ann Arbor) **Genetic implications of certain physiological processes affecting the metabolism of L-phenylalanine in man.** Amer. J. hum. Genet., 1957, 9, 208-217. L-phenylalanine was orally administered to ten sets of monozygotic and eight sets of like-sexed dizygotic twins under fasting conditions. Pre- and post-feeding blood and urine samples were taken and analyzed for changes in phenylalanine and tyrosine levels. An analysis of variance for the observed variation in both the diffusion of phenylalanine into the blood and its conversion to tyrosine gave no indication of genetic control of these processes. Under similar variance analysis, however, variations in the renal clearances of phenylalanine and tyrosine were found to be to some extent under genetic control. Evidence is presented to show that phenylalanine and tyrosine are possibly reabsorbed by a common tubular mechanism. The genetic and evolutionary implications of these findings are discussed. —Authors' Abstract.

227. National Academy of Science, National Research Council. **Report of the Committee on Genetic Effects of Atomic Radiation.** Amer. J. hum. Genet., 1956, 8, 207-228. This is a reprint of the summary report by one of the six committees established to carry on a continuing study of the biological effects of atomic radiations. After reviewing in a simple but precise way the present state of knowledge, these specific recommendations are listed: a national system of keeping individual records of x-ray and other gamma exposure, a movement to reduce such exposures, a limit of 10 roentgens up to age 30 for x-rays, a periodic review of this limit, a total limit of 50 roentgens up to age 20, assign only individuals unlikely to have further offspring to high radiation risks. —S. G. Vandenberg.

EDUCATION

228. CHANSKY, NORMAN M. (State Univer. of New York, Oswego) **How students see their teachers.** Ment. Hyg., 1958, 42, 118-120. In order to determine whether there is any relationship between the attitudes toward children that students hold and the attitudes they assign to their instructor, classes in child psychology were given the Minnesota Teacher Attitudes Inventory followed by a request for a statement of attitudes toward children that each subject believed his instructor held. The results indicated that, in general, the attitudes students assign to their instructor reflected the attitudes they themselves held. Representative case examples are given. —R. L. Witherspoon.

229. FRANKEN, AUGUST. **Stufen- und Ganzheitsverfahren im Rechtschreibunterricht des 2. und 3. Schuljahres.** (The teaching of spelling in second and third grade by the method-of-graded-difficulty and by the whole-word-method.) Psychol. Rdsch., 1958, 9, 202-224. The author proposes by way of empirical evidence and statistical analysis that the teaching of spelling is more effective if taught according to a method of graded difficulty than when taught according to the more common whole word method. The method of graded difficulty (Stufenmethode) is defined, its basic principle is that it begins with easy and simple material and goes on to the more complex and difficult. The experiment was conducted the first year with two experimental second grades and the second year with one second and two third grade classes and corresponding classes as controls. However, the control teachers were free to choose their own method of teaching, so that the statistical analysis was made between a specified method of teaching, that of graded difficulty, and controls with unspecified methods of teaching spelling. The findings demonstrate that the experimental classes show a greater gain in spelling than the controls. However, the theoretical discussion, without further empirical evidence, criticizes the whole-word-method and points to the strength of the method of graded difficulty which the author

obviously advocates. The article also contains a psychological analysis of spelling errors, especially in terms of what kind of errors the acoustic, the motoric, and the visual learner make. —R. E. Muuss.

230. HYRAM, GEORGE H. (4216 Margaretta Ave., St. Louis, Missouri) **An experiment in developing critical thinking in children.** *J. exp. Educ.*, 1957, **26**, 125-132. The purpose of this study was (a) to develop a procedure for improving the ability of upper grade elementary school children to think logically and (b) to evaluate "the effectiveness of a specially designed instructional procedure" for doing this. Six factors were selected for control purposes: general intelligence, mental age, sex, language ability, reading ability and instruction. By testing 200 children, two matched groups of 33 children each were set up. The children of the Control Group were taught by the 9 teachers with whom they had their other work. Their instruction consisted of the regular classroom experiences as provided for by the St. Louis Courses of Study. They were not exposed to the content or methods used with the Experimental Group. The Experimental Group was taught by the author. The method used with the latter group "was essentially the Socratic Method and consisted of carefully phrased questions based on simple problems." The pupil was lead "to discover a pattern in a series of such problems" and then "encouraged to express his insight in the form of a generalization." The experimental instruction lasted for a period of four months of 250 minutes per week. From the experiment it was concluded that there was support for the following: (a) That logical thinking depends upon a knowledge of the principles of logic. (b) That "upper grade pupils can be taught to think critically and therefore logically through the use of instructional procedures which emphasize the principles of logic as the learning content." —C. F. Cumbee.

231. JOHNSON, ALFRED HAROLD. (Univer. of Akron, Ohio) **The responses of high school seniors to a set of structured situations concerning teaching as a career.** *J. exp. Educ.*, 1958, **26**, 263-314. The purpose of this study was to find what high school seniors from four communities in Ohio "think of teaching as a career." The author described the study as "a non-sampling descriptive investigation." Some 170 students from four Ohio high schools were used. In addition to a projective technique of 11 loosely-structured situations about teaching and schools, three structured devices were used to gather data: The Bell Adjustment Inventory; the Strong Vocational Interest Blank; and the Kuder Preference Record. Father's occupation and membership in Future Teachers of America (except for one rural school) were obtained. The findings of the study are too detailed and numerous to summarize here, but the author concludes with the following: "For many reasons the stereotype of the teacher is not a favorable one. The teacher's dual role of helping the child to express himself on the one hand while restraining certain impulses on the other gives rise to an ambivalent attitude toward teachers, in which both respect and antagonism are present in varying proportions. Unfortunately this ambivalence does not pass with childhood, but remains as a determining element in the attitudes of the adult world towards teachers. It is perhaps more responsible than is generally realized for deterring adolescents from entering the teaching profession, and it has effects which have not been measured on the teacher's estimation of his own group and of himself. It might well be said that one of the major tasks in social education is that of eliminating the stereotype regarding teaching." —C. F. Cumbee.

232. KIRCHHOFF, HANS, & SCHIMMING, GÜNTER. **Linkshändigkeit und die verbale Lese-Rechtschreibschwäche, Ein Beitrag zur Psychologie des Schulschwachs.** (Lefthandedness and its relationship to verbal reading and spelling weaknesses. A contribution to the psychology of school failure.) *Psychol. Rdsch.*, 1958, **9**, 256-272. In an extensive review of the literature from cultural history, cultural anthropology, theoretical contributions, developmental considerations, and empirical studies, the authors investigate the etiology of lefthandedness and its relationship to reading and spelling weaknesses. They conclude that the maturational process, which consists of interaction between native and experiential factors, determines the lateral

dominance and thereby the handedness. The use of force in changing lefthandedness to righthandedness should be avoided. Definite forms of lefthandedness should not be changed. Postponement of learning reading, writing and arithmetic is suggested. The authors postulate that reading and spelling difficulties are frequently related to lefthandedness. —R. Muuss.

233. KRANTZ, L. L. (Ohio Univer., Athens) **The relationship of reading abilities and basic skills of the elementary school to success in the interpretation of the content materials in the high school.** *J. exp. Educ.*, 1957, **26**, 97-114. This study sought to establish "the relationships between measured areas of 7th-grade reading abilities and study skills and the content areas of the high school." Two 7th grade classes from the Austin Public Schools, Austin, Minnesota, were used. One class was tested as 7th graders in 1947 and again in the 11th grade in 1952. The other was tested in the 9th grade in 1949 and again in 1952 as 11th graders. The sample consisted of 215 pupils from the first group (7-11) and 256 pupils from the second group (7-9). The following tests were used: the California Intelligence Tests (Non-Language Section), 1946 Revision, grades 9 to adult; the Iowa Tests of Basic Skills, Form Q and Form R (for measures of reading abilities and work study skills); and the Iowa Tests of Educational Development, Form Y-2 (for measures of content areas of high school). The author's conclusions are too numerous to include all of them here, but some especially significant findings are: (a) Reading vocabulary was found to be more closely related to all content areas on the 9th grade level than were other measured abilities, while reading comprehension was more closely related on the 11th grade level than other abilities measured. (b) Use of the dictionary was related from the 7th grade to the same areas of content on both the 9th and 11th grade levels, but the relationships appeared stronger for the 9th grade. (c) Predictors predicting most often to both 9th and 11th grade levels were: total study skills, reading vocabulary and reading comprehension. Frequently, however, these were found in combinations with other skills and abilities. (d) Measures of reading and study skills at the 7th grade level can be used with a high degree of accuracy in predicting achievement in content areas at 9th and 11th grade levels. —C. F. Cumbee.

234. STRANG, RUTH. (Teachers College, Columbia Univer., New York City) **Students' perception of factors affecting their studying.** *Ment. Hyg.*, 1957, **41**, 97-102. An analysis of 536 students' unstructured compositions on the topic "What Makes Studying Easy or Difficult for Me" constituted the data and design of this study. The subjects ranged from grade 5 to the sophomore year of college and represented a wide range of intellectual ability and socioeconomic background. Responses were classified into 45 categories, 29 of which represented conditions expressed in double form "(e.g., freedom from other concerns and worries makes study easy; it is hard to study when one is bothered by personal problems)." 8 represent conditions helpful to studying, and 8 conditions considered detrimental. Students placed emphasis on personal factors such as interest and peace of mind and on the teacher's responsibility for fostering effective study rather than on certain environmental conditions usually considered important. The author pointed out that it is important for parents and teachers to listen to what students say, as youngsters reveal in their study methods a great variety of personality trends and ways of coping with life situations. The 10 most favored study conditions are listed and several compositions in their entirety are included. —R. L. Witherspoon.

SOCIOLOGY

235. AUSTER, D., & MOLDSTAD, J. (Indiana Univer.) **A survey of parents' reactions and opinions concerning certain aspects of education.** *J. educ. Sociol.*, 1957, **31**, 64-74. In a study designed to gain information regarding audiences in several Indiana communities watching an educational television program several

results were noted: (a) sending participant questionnaires home with elementary school children increases audience size five-fold; and (b) parents with less education viewed more. Questions related to educational procedures revealed (a) two-thirds of the parents believed "fundamentals" can be learned by lessons built around the making of cookies (10% disagreed), (b) almost two-thirds believe today's teachers are better than teachers of the parent's generation; (c) a few less than half of the parents would encourage a young man into teaching, while almost three-fourths would so encourage a young woman, and (d) major problems in today's school are shortages in physical plant and teachers. —L. M. Smith.

236. BAUM, C. F. (Brooklyn College) Developing competencies in democratic group leadership. *J. educ. Sociol.*, 1957, **30**, 275-282. A group of junior education students were trained in democratic group leadership after the students had made initial ratings of social climate in classrooms. Later ratings, after training, indicated the students had improved in their discernment of leadership climate. Improvement in "discernment" was not related to improvement in leadership in a community agency. —L. M. Smith.

237. BJERSTEDT, AKE. (Univer. of Lund, Sweden) Three types of square sociograms and some auxiliary micro-devices. *Educ. & Psychol.*, 1957, **4**, 175-191. The author recommends the use of different sociographic methods for different research aims, and describes several varieties of "chess-board diagrams" for plotting sociometric choices. —R. N. Walker.

238. BLOOD, ROBERT O., Jr. (Univer. of Michigan, Ann Arbor) The division of labor in city and farm families. *Marriage Fam. Living*, 1958, **20**, 170-174. Data from interviews with 731 housewives in an urban area and with 178 farm wives indicate that farm women perform a larger share of household tasks and help husbands in their occupations to a greater extent than do urban wives.

239. BONDY, CURT. Versagung und Aggression als kulturelles Problem. (Frustration and aggression as a cultural problem.) *Psychol. Rdsch.*, 1958, **9**, 249-255. Beginning with a review of the literature concerning frustration, frustration tolerance, aggression and the frustration aggression hypothesis, the discussion soon applies these concepts to social groups, social structure, and cultural anthropology. Thus, Hitler's slow progress in attracting voters during the years 1920-1928 and his rapid increase in power and followers during the following depression years is interpreted in terms of frustrated people accepting and identifying with his aggressive policy. Cases from cultural anthropology are discussed in which frustration as an important educational factor produces an aggressive character trait in the tribe. Finally the problem of how children should be raised without developing destructive aggression is posed. It is admitted that with increasing age a child has to be able to postpone and deny some of his wishes and desires. Education without this kind of frustration is impossible. How can children be taught to develop frustration tolerance without being exposed to the kind of frustration that results in aggression? The article is not based on experimental evidence nor does it attempt to answer the challenging question it raises. —R. Muuss.

240. GILES, H. H. (New York Univer.) Case analysis of social conflict. *J. educ. Sociol.*, 1957, **30**, 289-333. This special issue is devoted to an elaboration of Giles' technique of conflict episode analysis. Five cases, school staff conflict, teen age gang wars, interfaith project, race riot, and the Arab-Israeli conflict of 1954 are presented as illustrations of the functioning of the technique. —L. M. Smith.

241. GUSTAFSON, LUCILLE. (Buchtel High School, Akron, Ohio) Relationship between ethnic group membership and the retention of selected facts pertaining to American history and culture. *J. educ. Sociol.*, 1957, **31**, 49-56. 48 10th grade students with equal numbers from white Gentile, Jewish, and Negro backgrounds, and matched for age, sex, and intelligence, were taught a short unit in American

History. The unit stressed the positive achievements of members of all three groups. A pre- and post-test of knowledge regarding the three groups was administered. Each group learned and retained more information concerning its own group, although total achievement was comparable. —L. M. Smith.

242. KOBAYASHI, SAEKO, & SAITO, MICHIO. *An experimental study of leadership function in young children's groups.* Jap. J. educ. Psychol., 1958, 5, 195-199. This is a study of the development of leadership in groups of young children through experimentally created cooperative situations. 200 subjects (100 boys and 100 girls) in ten kindergartens in Tokyo were placed into 50 groups of four children each. 25 groups were composed of children with IQs between 100 and 110 while the rest were composed of children with IQs between 110 and 120. Each group then consisted of two boys and two girls whose ages ranged between 4.0 and 6.5 years. Each group of children was given two tasks to complete. The first was to color a single object drawn on a large sheet of white paper, while the second was to color four of the same object on another large sheet of white paper. The results are summarized as follows: (a) The first task known as "figure S" stimulates interactions between members and the development of group functions. Leadership and follow-type behavior increases with age. (b) The second task known as "figure F" inhibits the development of the group, i.e., little leader-type or follow-type behavior is seen. At the various age stages included there appeared much parallel working. (c) When leadership and follower behavior appeared under the conditions of task one, it appeared approximately 6 months earlier in groups made up of more intelligent children. (From English Summary) —A. Grams.

243. MARSHALL, HELEN R. (Univer. of Kentucky, Lexington) *Factors relating to the accuracy of adult leaders' judgments of social acceptance in community youth groups.* Child Developm., 1958, 29, 417-424. This study investigated hypotheses that variations in the accuracy of adult judgments of children's social acceptance are due to three types of factors: (a) characteristics of the judged children; (b) characteristics of the acceptance groups; and (c) characteristics of the adult judges. The adult judges were 36 women serving as volunteer leaders of 22 Home Economics 4-H Clubs with 263 girl members. Accuracy of these adults' judgments increased as the members' popularity status improved and as the members' relative age position shifted from below to above the median age of the club. The more accurate leader judges showed a greater increase in accuracy of judgment as the members' sociometric status and relative age position improved than did the less accurate judges. Accuracy of these leaders' judgments decreased as the size of the club increased from 4 to 27 members. No association with accuracy of judgments was found for two other group characteristics: median age of the club and number of club meetings held prior to the time of judgment. Differences in experience of these club leaders did not indicate how accurately these adults could judge the social acceptance of club members. —Author's Summary.

244. PRAKASH, J. C. (Indian Inst. of Science, Bangalore) *Estimating the probability of chance occurrence of an obtained score in sociometric-type tests.* Educ. & Psychol., 1957, 4, 273-276. The author presents a probability model for estimating the probabilities of chance occurrence of obtained scores in a variety of sociometric methods, including those in which multiple criteria are employed and where the number of choices allowed on each criterion may be either fixed or not fixed. —R. N. Walker.

245. SHERIF, MUZAFER, & SHERIF, CAROLYN M. (Univer. of Oklahoma) *Experiments on conflict and harmony between groups.* Educ. & Psychol., 1957, 4, 192-205. The authors summarize a series of experiments, individually reported elsewhere, on the production and resolution of conflict in children's groups at summer camps. Previously unacquainted boys, aged 11 to 12 years and equated for socioeconomic background, were selected to form groups of 20 to 24 subjects. The spontaneous development of intragroup organization and the assignment of roles are

described. Friction between groups was planned by the experimenters' setting goals which could be attained by one group only at the expense of another group. The resulting intragroup solidarity and intergroup rivalry are described. Intergroup hostilities were not resolved by simply providing enjoyable activities in which both groups could participate, but were resolved when superordinate goals were set (a series of "emergencies" staged by the experimenters) which could be accomplished only by both groups together. —R. N. Walker.

246. STRAUS, MURRAY A., & STRAUS, JACQUELINE H. Personal insecurity and Sinhalese social structure: Rorschach evidence for primary school children. *East. Anthropol.*, 10, 97-111. This paper reports the use of the Rorschach technique to assess and compare the personality of a sample of Sinhalese children with a comparable aged American sample. By comparison with the usual European or American protocol, the blot interpretations of the sample Sinhalese children are extremely deviant. But comparison with data for the like aged sample reported by Ames et al. brings to light important areas of similarity as well as difference. For example, in common with the American children of this age, the Sinhalese children appear to be primarily responsive to the external social environment rather than to their own inner feelings and imaginative processes. They also show a normal desire for the willingness to respond to emotional stimuli. On the other hand, the Sinhalese children tend to overcontrol their reactions and avoid intense affective response. Their protocols contain many indications of a basic insecurity and anxiety. This insecurity is probably a factor accounting for the avoidance of affective response noted above, the overpliant adjustment, the excessive caution and lack of creativeness, and the general overcontrol for children of this age. . . . It is concluded that despite the complexity and differentiation of Sinhalese society, and despite the variability growing out of the loosely woven nature of Sinhalese society, the results of this study give some support to the validity and utility of the concepts of national character and modal personality. It is also concluded that the hypothesis of a high incidence of feelings of insecurity among the Sinhalese is supported by the results of the use of the Rorschach technique with this sample of children. Moreover, in the several indications of what is called the "burnt child" pattern of response found in these protocols, there is evidence which can be interpreted as supporting the hypothesis that the cause of this insecurity is the feeling of rejection arising out of the tendency of the parents to withdraw overt signs of affection, occurring as it does in the context of the general undependability of interpersonal relations in the loosely structured Sinhalese society. —From Authors' Summary and Conclusions.

247. TERAOKA, TAKAHASHI. An investigation on the standard score of sociality as an index of social status and the application of it. *Jap. J. educ. Psychol.*, 1958, 5, 226-233. Using a sociometric technique, the author develops a standard score of sociality based upon the assumption that sociality is normally distributed. This standard score of sociality is then studied in relationship to school records and intelligence. The results suggest that the correlation between sociality and school records is relatively high, and that the former is independent of intelligence. The author concludes that sociality relates to the fact of being an over- or under-achiever, rather than to the degree of intelligence the particular pupil possesses. (From English Summary) —A. Grams.

248. WASHBURN, C. (Yale Center of Alcohol Studies) The teacher in the authority system. *J. educ. Sociol.*, 1957, 30, 390-394. 20 midwestern teachers doing graduate work were interviewed intensively. A portion of the data related to the problem of conflicting roles and authority are presented here. The author concludes: "The status of teachers is given one role by the teacher and another by the bureaucracy which he works. The teacher may have a role conception stressing his professional training, but he finds that this is not rewarded in the system where he works, neither is violation of this role punished. It seems largely ignored by the administration. Individuals lack support for their role concept and are stressed because they expected it would be supported, and feel justified in expecting support." —L. M. Smith.

Book Notices

249. ALLEN, FRED H., Jr., & DIAMOND, LOUIS K. *Erythroblastosis Fetalis*. Boston: Little, Brown, 1958. xi+143 p. \$4.00. This monograph, an expansion of material which was presented in the "New England Journal of Medicine" as a Medical Progress Report, is a concise, clear exposition of a subject as complicated as it is important. In the short span of 25 years since Diamond, Blackfan and Baty showed that hydrops fetalis, icterus gravis neonatorum, and anemia of the newborn were all manifestations of the same pathogenic process, the great advances, to which the authors have contributed so much, have provided the means of saving life and of preventing disability. Four chapters of 31 pages present a clear picture of the blood group factors, maternal sensitizations, and the effect on and response of the fetus. A chapter on diagnosis is followed by one on treatment, with special reference to exchange transfusions. There is a chapter on prevention, and indeed the concept of prevention in its most inclusive sense appears throughout the book. "Erythroblastosis fetalis is a public health problem because of its preventable features, and, when necessary, its management should have the support of public health agencies." Chapters on Suggestions for Nurses, and Hints for Laboratory Technologists complete the presentation. The areas in which the present state of knowledge is evidently incomplete are briefly listed in the concluding chapter. The authors believe that improvements will come before long, and stress that application, with care, of available knowledge, can prevent "much of the disappointment and heartache" that this condition has caused in the past. There is a list of well selected references, a useful glossary, and a good index. "This is medical writing as it should be," says Edith Potter in her Foreword, "by people who know the subject thoroughly and how to present it so that the reader will know too." One must agree heartily. —W. M. Schmidt.

250. ALLEN, ROBERT M. *Personality Assessment Procedures*. New York: Harper, 1958. xi+541 p. \$6.00. This book contains an excellent summary and critical review of all of the major methods and techniques for assessing personality. The author writes clearly and objectively at a level understandable and interesting to college undergraduates. It is a remarkable book in that the author has succeeded in fairly reviewing and evaluating scores of instruments and many of the studies undertaken to evaluate them in less than 500 pages. Furthermore, he includes short, well-written sections on the application of these testing procedures and the professional ethics governing their use. Nowhere does Allen try to teach testing techniques; this is not a book for the student who wishes to learn how to give particular tests. Rather it is a survey of procedures used, including psychometric, projective, life situation, and even physical methods. The inclusion of life situation and group dynamics approaches as well as the polygraph and other physiological methods makes this work broader in scope than the usual survey of testing methods. The book contains a fine introduction to test theory and a valuable, exhaustive bibliography of over 600 titles, mostly recent. This carefully done volume should get wide acceptance as an undergraduate textbook. —R. Wirt.

251. AUSUBEL, DAVID P. *Theory and Problems of Child Development*. New York: Grune & Stratton, 1958. xiv+650 p. \$12.00. This new book by Ausubel is an important contribution to the much needed revitalization in the field of child development. It is a document typical of his scholarly efforts, and its detail and completeness make it both a handbook of essential information as well as an abundant source of stimulating theoretical notions. Nearly 200 pages, almost a book in itself, is devoted to an exposition of the theoretical and historical foundations of child development. This section is a thorough and definitive statement of the major trends

since child development came into its own; it contains a reconsideration of the interaction between heredity and environment; and it explores the nature of developmental processes as well as the problems of methods or research. In part II (*The Beginnings of Development*) an extensive survey of prenatal development, the birth process, and neonatal behavior is followed by a discussion of dogma, fads, and fashions in infant care. The research done on these topics is organized, interpreted, and summarized insightfully to make a highly compact and effective account of experimental evidence bearing on prenatal life and infant care. The largest single section of the book is devoted to consideration of the complex problem of personality development. It is in this part that the author's emphasis moves most clearly from reporting and documentation to a theoretical appraisal of topics ranging from the development of the emotions and the ego to peer and parent relationships. In some instances Ausubel's theoretical position is apparent only in the research he selects to report and in the emphasis he places on particular studies; more often his views are expounded in a direct and lucid fashion. In either circumstance he is able to draw perceptive and refreshing insights from what, in the past, has been a jumble of study piled atop of study. A number of Ausubel's theoretical conclusions are unorthodox and will startle tradition-bound readers. Since his analyses seem always to bring new meaning to familiar material, his contribution to our understanding of personality development is an important one. The book's last section covers a number of special aspects of development. These are traditional topics in a book on child development, including physical growth and motor development, the development of language, perceptual and cognitive development, and the growth of intelligence. This is a comprehensive work that blends a completeness of coverage of the most important areas in child development with a theoretical sophistication that is unusual in the field. If, indeed, child development is displaying waning vigor as a discipline, this book will certainly prove to be a vital stimulus to its recovery. It is not a book to be read casually or rapidly. Ausubel's style of writing requires thought and intellectual discipline but there is a substantial return to be gained from the investment to time. It is a book that ought to be read by every serious worker in the field of child development. —E. B. McNeil.

252. BERNERT, ELEANOR H. *America's Children*. New York: Wiley, 1958. xiv+184 p. \$6.00. Between 1940 and 1950, the number of children and youths under 20 years of age increased by 6 million, from 45 to 51 million. The average number of children per family of children ranged from 2.4 for families with an income of less than \$1000 per year in 1949 to 1.9 where the annual family income was \$6000 or more. About 4 million or about one-fifth of the nation's school children 8 to 18 years old were retarded in their age-grade progress in April 1950. Boys living on farms generally enter the labor force about a year earlier than do non-farm boys. Almost two-thirds (64%) of the nation's population is urban but only 58% of children under 14 live in urban areas. These are among the thousands of facts about America's children to be gleaned from this volume. What Bernert has done for us is marshal in orderly fashion and analyze the data about children and youth that were collected in the 1950 Census of Population. These data she has supplemented and rounded out with materials from other studies. Nor is this a dry presentation of statistics. The author has scanned the literature and utilized her own extensive experience to explain trends, distributions, variations; the list of references is impressive and useful. In order of arrangement, the various chapters deal with the size and distribution of the young population, living and family arrangements, educational attainment—with a chapter devoted specifically to variations in age-grade school progress, and to the participation of youth in the labor force. The marked contrast among various parts of the nation with respect to these elements, especially the contrast between the South and the rest of the country, stands out in all these chapters. Unfortunately, such is the content of Census data that nothing is available on physical growth, health, nutritional status, the extent of handicap, etc. In this respect, the title of the book is a little misleading. It is unfortunate, too, that one has to wait for eight years to have these kinds of Census data at hand. It is devoutly to be wished that comparable materials from the 1960 Census will be out very much sooner. —I. Altman.

253. BRECKENRIDGE, MARIAN E., & MURPHY, MARGARET NESBITT. Rand, Sweeny, and Vincent's Growth and Development of the Young Child. Philadelphia: Saunders, 1958. x+548 p. \$5.50. The fifth revision of Rand, Sweeny, and Vincent's "Growth and Development of the Young Child" which first appeared in 1930, this time-tested text spans an era of great productivity in child development research. Stating their basic concept as one of a developmental-dynamic nature, the authors proceed to examine the child's growth "longitudinally, cross-sectionally, and always interrelatedly." Emphasis is placed heavily on the processes involved in growth during the early years of life. First the authors present a rather thoroughgoing chapter on current concepts and theories of growth and development which should be helpful to students in formulating a conceptual framework within which to study children. Following this is a somewhat general treatment of the home and family as a background for growth. It represents a conscientious attempt to develop a cultural backdrop for children's growth but, to many readers, may seem to fall short of the obvious intent of the authors. The chapter entitled "Life Begins" presents a clear picture of pregnancy and prenatal growth, but gives little emphasis to genetic factors and conception. Much space is devoted to nutrition during pregnancy. The next 190 pages (out of a total of 486 pages of text) are devoted to physical development, meeting physical needs, and motor development, thereby shifting the emphasis of the book heavily in the direction of the physiological-physical developmental areas. The material within these pages is well-documented, effectively illustrated, and detailed. A chapter dealing with intellectual development, besides containing the usual materials on sensory perception, learning, reasoning, language development, and measurement, is enriched by having sections on development of imagination and additional creative abilities such as art, music and other forms of self-expression. A chapter on the child's emotional, social, and spiritual development completes the material on development proper. Here the emphasis is on the development of a healthy personality with much material quoted from the Midcentury Whitehouse Conference publications. The final chapter is a philosophical one dealing with adult-child relationships in which the reader is helped to understand how he may use his knowledge of growth principles in actually living and working with young children. The section on discipline is sensitively written and should help the student to develop his own philosophy about this aspect of guidance. Each chapter is followed by suggested topics for study and discussion and by a group of selected readings. A list of films, a bibliography of 932 titles, and an efficient index help to make the book a usable, effective teaching tool. —G. E. Chittenden.

254. CHRISTENSEN, HAROLD T. Marriage Analysis. (2nd Ed.) New York: Ronald Press, 1958. x+645 p. \$5.50. Although the revision of a book which appeared originally in 1950, this second edition is practically a new book. Several chapters have been carried over unchanged from the first edition, but the major part of the volume has been rewritten. The new edition contains 22 chapters, as against 14 in the original one, and is 135 pages longer. Factual and statistical information is brought up to date; in fact, a comparison of the two editions is a striking illustration of the marked progress in scholarship in the family field, achieved in a relatively few years. By nature and purpose, the book is essentially a project in family life education, seeking to stimulate thought making for successful family life. The author's faith is in education—knowledge through research, dissemination through teaching, application through clinical services, and public expression through legislation. In addition, religion must play a motivating role. The book is well written. The thought is expressed in sentences that are clear and direct. The jargon that mars some textbooks is absent. All of this means that this is a useful text for students, which, after all, is the proper purpose of a text. —J. H. S. Bossard.

255. ENGLISH, HORACE B., & ENGLISH, AVA CHAMPNEY. A Comprehensive Dictionary of Psychological and Psychoanalytical Terms. New York: Longmans, Green, 1958. xiv+594 p. \$8.00. This is the only book in psychology that literally and figuratively covers a range of topics from A to Z. Since the field of psychology suffers so acutely from the twin diseases of neologistic fertility and literary barbarousness, a truly comprehensive dictionary of psychological and psychoanalytical

terms ought to be on the bookshelf of every psychologist. Psychological terms (more than 13,000 in this dictionary) tend to accrue as many meanings as there are contexts in which they appear, and this defining dictionary by English and English stresses not a compilation but rather a collection of the meanings they have acquired in their travels through strange and exotic theoretical systems. The authors have attempted to make this book a guide to good usage and often two statements of meaning are given for the same word; a simple one for the layman and a second more technical and accurate one for the specialist. In addition, the dictionary contains a collection of nearly 300 brief articles presenting material or comment bearing on the use, origin, or application of specific terms. These articles are theoretical papers which, in a sense, treat the meaning of important terms along historical principles. One seldom describes a dictionary as interesting and fun to read but this proves to be an exception to the rule. This book has been personalized through extensive editorial comment by the authors and these comments are not only enlightening but phrased in a refreshingly casual style—a style highly suggestive of that of Bergen Evans' "Dictionary of Contemporary American Usage." The flavor of editorial comment, when it is in a light vein, is conveyed in these typical entries: "Xenoglossophilia: *n.* A disorder that leads to the use of strange, pretentious words, or those having a foreign origin, when simpler words from one's own vernacular would serve better. The very term is itself the product of this probably incurable—certainly chronic—disorder. Inclusion of such foreignisms in this dictionary does not imply approval of their use. Xenoglossophobia: *n.* A morbid fear of foreign languages. A very common affliction of graduate students." The generous use of cross-referencing and the judicious use of grouping of related terms allow the reader to make comparisons which add richness to the definitions of words. Although this is not a book designed to be read cover-to-cover at one sitting, it is a document that contains more meaning than is usually attributed to a dictionary. It is as much a record of the changing shape of psychology as it is a demonstration of lexicology at its best. —E. B. McNeil.

256. ESMAN, AARON H. (Ed.) *New Frontiers in Child Guidance.* New York: International Universities Press, 1958. xiii+218 p. \$4.00. This book is a compilation of nine papers written by members of the staff of the Jewish Board of Guardians. It is a memorial to the late Dr. Van Ophujsen who formulated and developed the therapeutic approach practiced at that agency. The papers fall into three groups: (a) the Van Ophujsen Memorial Award Papers, (b) special techniques in child guidance practice, (c) the problem of the severely disturbed child. This collection points out the broadening areas taken care of in child guidance. The utilization for both diagnosis and therapy of the skills of the group worker and the nursery teacher along with the more traditionally established members of a clinical team is pointed out. Papers cover experience in residential treatment centers and in nursery schools as well as the more typical child guidance area. The purpose of the book is to provide fresh insights for further work and investigation by giving illustrations from the work of the Jewish Board of Guardians. This is well accomplished. Many of the papers describe experiments in diagnosis and therapy. The presentation varies, including an edited report of a clinical conference. The variety makes for stimulating reading. I believe that the account of the methods of diagnosis would be most helpful to any clinical setting, while problems of the parents and the resulting therapy are more typical of the New York City area and the clients of the agency. The excellent paper "Interpretations of Psychological Tests to Parents by a Child Guidance Clinic" exemplifies the way in which the authors' propositions are based on specialized case material so that caution is needed in generalizing from them. —E. N. Plank.

257. FAEGRE, MARION L., ANDERSON, JOHN E., & HARRIS, DALE B. *Child Care and Training.* (8th Ed.) Minneapolis: Univer. of Minnesota Press, 1958. ix+300 p. \$3.00. This is a completely revised edition in keeping with current concepts of child development and growth. In addition to material presented in past editions, a chapter on personality adjustment and mental health has been added. All illustrations are new. There are up-to-date materials on general care including diet and clothing, children's diseases and accidents, toileting, feeding and resting, emo-

tional behavior, sex education, social adjustment and the family as a whole. The book is readable and should be of interest to professional groups, parent educators, and parents themselves. —F. Gould.

258. FARNSWORTH, PAUL R., & McNEMAR, QUINN. (Eds.) *Annual Review of Psychology*. Vol. 9. Palo Alto, Calif.: Annual Reviews, 1958. vii+543 p. \$7.00. The ninth volume of this annual review presents a summary of the recent research in 17 areas of specialization in psychology and closely allied disciplines. The authors of the different sections have, in general, provided a comprehensive, rather than analytic or interpretative, survey of the literature appearing during the last year. Although the Review will prove most valuable to psychologists, educators and sociologists will find selected chapters of interest. In addition, the initial section of the chapter on Recent Developments in Psychology in the USSR (Mintz), which describes the political-social context of scientific psychology in that country, will undoubtedly be of interest to social scientists in general. The chapter of Development Psychology, written by Pauline Snedden Sears, accurately mirrors the current diverse interests of investigators whose primary concern is with various aspects of psychological development. The literature appearing during the past year is presented in terms of the following major areas of interest: the effect of early experience on psychological development; learning; cognition; motivation ("drive systems"); self-other relationships; and social interaction processes. A short section on abilities, and a list of recent textbooks, close the discussion. Both the "generalists" and the "specialists" in developmental psychology, however, will undoubtedly find other chapters that warrant their attention. The reviews of Learning (Lawrence), Perception (Prentice), and Personality (Jensen), for example, contain a considerable amount of material relevant to psychological development. Educational Psychology (Coladarsi) and Abnormalities of Behavior (Garner) also will prove valuable as source material for specialists in these areas. This volume reflects some of the anticipated changes in editorial policy that are to be completed by 1960. Article titles are now included in the reference lists (excepting one chapter) and the subject index has been considerably improved. Both of these changes add to the value of the Review as a general reference source. A more basic policy change involves the provision for analytic, evaluative reviews of selected areas of psychology at regular and timely intervals. Perception and Engineering Psychology (Fitts), for example, replace chapters on Somethesis and Individual Differences for this particular issue. After diligently reading every chapter, the reviewer is of the opinion that the new policy, when extended to more areas of specialization, will result in more detailed, critical, and useful analysis of the current literature. —C. D. Smock.

259. FISHBEIN, MORRIS, & KENNEDY, RUBY JO REEVES. (Eds.) *Modern Marriage and Family Living*. New York: Oxford Univer. Press, 1957. xvii+545 p. \$5.00. This book, edited by Fishbein and Kennedy, is a compilation of chapters written by 39 contributors from many different disciplines; including child development and psychology, anthropology, sociology, economics, medicine, psychiatry, biology, and marriage counseling. "The family is reviewed as a fundamental institution of society as well as the main primary group in which human beings expect to attain personal satisfactions." Arranged in an order to facilitate study, social aspects are considered first, then personal considerations in preparation for marriage, the marriage itself, conception, pregnancy and child birth, ending with a section of "The Child in the Family." All the authors are well known specialists. Each chapter has topics for further thought and a few carefully selected references with specific page references applicable to the topic. While the book is intended to replace "Successful Marriage" published in 1947 by Fishbein and Burgess, which has been widely used and liked by undergraduate students, and while it uses some of the material in the earlier book, the symposium effect tends to depersonalize the presentation and make it appear to be another sociology text book. It does not have the unity or the personal feeling that some of the marriage texts written by one person have. The information on each topic is sound and up-to-date, but rather brief and will need to be supplemented by other references. —E. McGinnis.

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260. FREDERICKSEN, HAZEL. *The Child and His Welfare.* (2nd Ed.) San Francisco: W. H. Freeman, 1957. x+364 p. \$5.00. This second edition of Fredricksen's book represents a major revision. New material includes a chapter on growth and development of the child, a list of films on child life, and a list of publications of interest to child welfare workers. The first two chapters of the first edition have been combined into one chapter in the new edition. Rather complete revision has been done for the chapters on juvenile delinquency, religion, and international social work. Case material for illustrative purposes has been included in the areas of probation, adoption, and foster care. Bibliographies have been brought up to date. The book represents wide coverage for its 364 pages. It is designed for the undergraduate college student and for the general reader, and is intended to give a broad view of the field of child welfare, taking account of current philosophy and recent developments in the field. —M. Stanland.

261. FRENCH, WILL, & Associates. *Behavioral Goals of General Education in High School.* New York: Russell Sage Foundation, 1957. 247 p. \$4.00. This report presents an organized consensus of the expectations that citizens and educators hold of the American high school. The study was made under the joint sponsorship of the Russel Sage Foundation, the National Association of Secondary School Principals, and the Educational Testing Service, with planning assistance from the United States Office of Education, the American Association of School Administrators, and the Association for Supervision and Curriculum Development. The work aimed at developing and putting into useful form a statement of the principal behavior outcome of that part of secondary schooling which is devoted to general education of all youth. Assisting were the work of three committees: Committee of Consultants, Committee of Advisors, and Committee of Reviewers. The proposed lists of behavioral outcomes were organized under three maturity goals and four areas of behavioral competence. They are based on the assumption that (1) the student should be assisted to realize his own fullest potentialities and meet his civic responsibilities; (2) outcomes of education should be described in terms of performance or behavioral competence rather than in terms of knowledge; (3) students should be expected to know how to use what they know and how to have the disposition to do so; and (4) education should be sufficiently broad to provide youth with the kind of competence needed to meet life's demands as a person and as a citizen. The book is submitted as a practical aid to classroom teachers, curriculum committees, curriculum coordinators, principals, superintendents, members of State Departments of education, college teachers, and members of lay committees, to use in evaluating their own present curriculum and as a guide in curriculum revision. —S. M. Amatora.

262. FROSCH, JOHN, & ROSS, NATHANIEL. (Eds.) *The Annual Survey of Psychoanalysis. Vol IV.* New York: International Universities Press, 1958. xiv+770 p. \$12.00. This volume is an annotated bibliography of 236 articles and 18 books on psychoanalytic subjects published during 1953. With the exception of a single article from the "Journal of Abnormal and Social Psychology," all the articles were published in 21 psychiatric or psychoanalytic journals, six of these being published in foreign countries. The survey is divided into ten sections: history, critique and methodology, ego psychology and instinct studies, clinical studies, dream studies, psychoanalytic child psychiatry, applied psychoanalysis, psychoanalytic therapy, psychoanalytic training, and psychoanalytic studies in psychiatry. The articles are almost without exception theoretical, clinical, or individual case history presentations, as is characteristic of the psychoanalytic literature. They are abstracted with great thoroughness and attention to detail; the average abstract covers nearly three book pages. Regardless of one's theoretical leanings, this volume provides a valuable account of the psychoanalytic literature for the year 1953. —E. E. Levitt.

263. GODSHALL, FRANCES R. *Nutrition in the Elementary School.* New York: Harper, 1958. xi+112 p. \$2.75. This book was written primarily to help children of elementary school age establish good eating habits. The author accomplishes this by presenting the fundamental principles of good nutrition so that the

elementary school teacher who has studied little science can understand them. Along with this very lucid presentation of the present-day knowledge of nutrition, "specific methods are given by which nutrition can be presented to the young child in order to produce satisfactory results." The essential nutrients and their functions are discussed in relation to the health and growth needs of elementary school children. Classroom projects, such as feeding experiments with rats and chicks, are suggested to illustrate the effect of the lack of the various nutrients, especially the vitamins. There is a chapter on menu planning for the young child which explains the use of the Daily Food Plan and indicates the kinds of foods children of elementary school grades prefer. The chapter on cultural differences in food patterns is important in helping the teacher to appreciate the background of her pupils and to create an atmosphere of understanding and tolerance in her classroom. Suggestions are made throughout the text for integrating nutrition teaching with other classroom subjects. The calculation of caloric intake can easily be done in the mathematics class, and the history of nutrition and the discovery of the vitamins can be discussed in the social studies class. The art class can plan and execute colorful nutrition posters and projects for exhibits. There are suggested reading lists at the end of each chapter for those interested in more information and detail. This is a useful text for nursery, kindergarten and elementary school teachers, who are in such a strategic position to help young children establish good eating habits, and for parents who will find this text a helpful guide to good nutrition for their family. —P. S. Peckos.

264. HADLEY, JOHN M. Clinical and Counseling Psychology. New York: Knopf, 1958. 682 p. This book is intended as a text for the introductory course in clinical and/or counselling psychology. This is true of the section on diagnostic testing, which overviews several dozen of the most commonly used instruments. The sections on the anamnesis and the diagnostic interview are unusually detailed and comprehensive. The sections on psychotherapeutic approaches, theories, and practical techniques comprise one of the most complete and comprehensive presentations that can be found in any volume of this type. A praiseworthy attempt is made to synthesize many experimental findings as well as theoretical views and clinical techniques. Among the specific approaches discussed are emotional release, supportive therapy, relearning as therapy, nondirective and directive counselling, environmental manipulation, group therapy, vocational guidance, and techniques with the disabled and speech problem clients. A concluding section on professional issues involving psychology is written with unusual candor. Among the matters discussed are the psychologist in private practice and in the medical and educational setting, relations between psychology and other professions, legal recognition of psychology, characteristics of the clinical psychologist, and predicted future developments in the profession. This book is highly recommended as an excellent text for the graduate course in counselling or psychotherapy, and as an adjunct to the graduate practicum in either of these areas. It is adequate for the undergraduate course in testing. The discussions of professional issues could be profitably read by the practicing psychologist as well as by the student considering psychology as a profession. —E. E. Levitt.

265. HALL, VICTOR E., FUHRMAN, FREDERICK A., GIESE, ARTHUR C. (Eds.) Annual Review of Physiology. Vol. 19. Palo Alto, Calif.: Annual Reviews, 1957. viii+639 p. \$7.00. Each Annual Review covers selected chapters of the total field of physiology. This year's Review, however, has added a chapter on "Recent Advances in Russian Neurophysiology." This is a welcome addition, since most physiologists outside of the Soviet Union have been unable to keep themselves informed of the work of their colleagues within the Soviet Union. Each year a different chapter will be presented. Next year's topic will deal with the physiology of the cardiovascular and allied systems. "This project, as supported by the National Science Foundation, calls for the preparation of these special chapters by scientists who have the necessary competence for the task." Another timely topic is the one on the "Effects of Radiation on Mammals." To the members of this Society the chapter on "Reproduction" will prove to be of interest. Obviously there is no point in trying to review reviews of the literature. In general, the reviewer noted that the English

language literature is well covered but this is not so to the same degree of foreign language articles. —H. C. Schumacher.

266. HALL, VICTOR E., FUHRMAN, FREDERICK A., & GIESE, ARTHUR C. (Eds.) **Annual Review of Physiology**. Vol. 20. Palo Alto, Calif.: Annual Reviews, 1958. viii+633 p. \$7.00. For workers in the field of growth and development the chapter on the hormonal regulation of growth, by Jane Russell and Alfred Wilhelm, is the most interesting one in this year's "Annual Review of Physiology." These authors describe the work appearing between 1953 and 1957 and include discussions on the species specificity of growth hormone and the recently hopeful experiments on the administration of purified monkey and human hormone to man; the effects of the hormone on nitrogen metabolism; the differential responses of individual muscles in the rat to GH. They quote (page 49) a review by Simpson and others on the role of hormones in the growth and maturation of bone, together with some other papers on this topic. References also are given to the effects of hypophysectomy and the administration of GH on foetal growth. Besides these the interactions of thyroid hormone, insulin, adrenal cortex and the sex hormones with each other and with GH in the growth of animals are covered. 227 titles are given. There is not a great deal else in this volume to interest workers in child development directly. On page 181 there are references to the endocrine factor associated with sebaceous gland growth, and there is a chapter by George Sayers and his associates on the relationships between hypothalamus, pituitary and adrenal cortex, in which the identity of corticotrophin releasing factor, of interest in the endocrinology of adolescence, is rather inconclusively discussed. There is a chapter on reproduction, and at page 512 references are given to studies of the enzyme content of the hypothalamus during maturation in rats. Under growth and under development in the Index few further items than these are referred to. —J. M. Tanner.

267. HUTT, MAX L., & GIBBY, ROBERT GWYN. **The Mentally Retarded Child**. Boston: Allyn & Bacon, 1958. xii+334 p. \$4.50. The 10 chapters deal primarily with a dynamic interpretation of adjustment as applied to the mildly and moderately retarded child. The theoretical framework is essentially psychoanalytic and the authors attempt to approach the mentally retarded child in an holistic and organismic manner. The first chapter concerns itself with the problem of mental retardation and considers the concept of mental deficiency, historical antecedents, pseudofeeble-mindedness, and the relation of mental retardation to intelligence test scores. The second, third, fifth, and sixth chapters deal with personality development, personality organization and conflict, anxiety and psychological defense, and problems of adjustment, respectively. Psychoanalytic concepts are used readily and clearly explained. Consideration is given to such concepts as birth trauma, psychosexual periods of development, regression and fixation, etc. Conflict is discussed in terms of the id—ego—superego paradigm although some consideration is given to the Lewinian model. Anxiety and defense theory is set forth clearly and used as a basis for the discussion of problems of adjustment. Chapter 4 considers the classification, characteristics, and etiology regarding intellectual retardation. The authors, after surveying the present concepts of mental retardation, present criteria for what they call a "modern concept of mental retardation." A "dynamic" understanding of the child along with a consideration of the "total child" is stressed throughout the text. Chapter 7 concerns itself with assessment and evaluation. Historical information, physical examination, evaluation of personality characteristics, and psychological evaluation are all discussed. Intelligence tests, personality, and projective techniques are all presented in a descriptive manner. Chapter 8 devotes itself entirely to parental reactions and methods for the alleviation of emotional difficulties which accrue. Chapter 9 deals with education, guidance, and treatment; the role of the school, teachers, and community are considered along with diverse therapeutic approaches. The last chapter considers society's role in programs for the mentally retarded; education of the community, guidance and treatment of the parent, improvement of residential facilities, and vocational programs are all stressed. This text can be used as an introductory text and seems best suited for undergraduate classes. It is "clinical" in its

approach and will no doubt be helpful to educators, social workers, physicians, ministers, and parents. Some professional people may find the text oversimplified and the psychoanalytic rationale distasteful, but all will no doubt agree with the inherent message. —A. M. Kaplan.

268. LANDRETH, CATHERINE. *The Psychology of Early Childhood*. New York: Knopf, 1958. xviii+412 p. \$6.50. Landreth's book is a balanced presentation of work on behavior development of the preschool child. It covers the usual textbook subjects of the history of child psychology, prenatal origins of behavior, neonatal behavior, language and speech development, emotions, learning, and intelligence. The text is unique for its excellent selection of material on social behavior with peers and sibs, and on perceptual and adaptive behavior. The chapter on intelligence is remarkably balanced and sophisticated. Teachers may want to supplement the book with material on learning theory, Freudian hypotheses, Piaget's formulations, etc., but the text, in the areas cited above, is written clearly and critically with up-to-date research documentation. Its emphasis on peer group and sibling interaction is unique and admirable. The author makes no attempt to cover all the literature, but carefully selects to document her conclusions. There is a sprinkling of case material, generally nursery school episodes—a welcome departure from the usual clinical file descriptions of children. Landreth makes specific suggestions on the handling of children. The book is written for an audience of students interested in work with children, but who want to know the evidence behind the methods they have been taught. The text handles the job well for the advanced undergraduate and the beginning graduate student of child psychology or child development. —Z. Luria.

269. LEE, J, MURRAY, & LEE, DORRIS MAY. *The Child and His Development*. New York: Appleton-Century-Crofts, 1958. xiii+624 p. \$6.00. This volume is planned to meet the needs of a teacher-education program which necessitates a one year's course in the combined areas of human development and learning. Divided into four sections, the book treats of basic concepts in understanding the whole child, the relation of the developmental pattern of the individual as he grows physically, intellectually, and in his relations to others and in his whole personality. The second part deals with ways of understanding children through the use of both physical and psychological tests and measurements, through peer relationships, and through behavior cues. The next section presents methods of helping the learner, analyzes goals and motivations, studies concepts, problem solving, and creativity, discusses attitudes and values, and shows the importance of the development of skills, of transfer of training, and of retention and forgetting. The last part, devoted to ways of working with individuals and groups includes chapters on discipline, the development of group relations, and parent-teacher relations. The book can be used for a one-semester course, or a full-year course, as stated by the authors. It presents the basic concepts of a course in child psychology, of a course in educational psychology, and tests and measurements. —S. M. Amatora.

270. LOTT, GEORGE M. *The Story of Human Emotions: From a Teen-Age Viewpoint*. New York: Philosophical Library, 1958. x+228 p. \$4.95. This book is intended for the general reader, and particularly for parents desiring a better understanding of the problems involved in bringing up children. The author, who is a practicing psychiatrist, writes simply, soundly, and to the point, and it would be difficult to imagine anyone short of the ability to read who could fail to follow the author's exposition and profit from it. While the book is subtitled "From a Teen-Age Viewpoint," the author covers the whole developmental period, succinctly discussing virtually every problem parents are likely to encounter in their children. —A. Montagu.

271. McCORKLE, LLOYD W., ELIAS, ALBERT, & BIXBY, F. LOVELL. *The Highfields Story*. New York: Holt, 1958. x+182 p. \$2.60. This book is a report of a five-year experimental study of a treatment center for juvenile delinquency where none of the institutional patterns of a reformatory was applied, but instead new knowledge of the nature and causes of delinquency obtained from psychological and

sociological research. The investigation sought to find the answers to such questions as: Could an atmosphere of rehabilitation be established among boys to counteract the growth of delinquent behavior? Would they gain insight into factors which led them to delinquency? Could a residential center of 20 boys under a small staff be operated successfully? The boys at the center were not committed but were allowed to come as a condition of probation. There were minimum regulations and nothing to prevent them from running away; however, an escape was considered a violation and would result in court appearance. Through guided group interaction, the psychological approach aimed to change the self-conception of the boy from delinquent to nondelinquent; the sociological approach, to rehabilitate, to reverse the process which induced the boy to delinquency, giving him inner strength to be an individual. "The guided group interaction sessions permeates all phases of life at Highfields, whether it is work or play, fighting or arguing, eating or walking, and sometimes sleeping." Through the group process, only two concepts are made known to the boys: (a) "What is my problem?" (b) "Have I made progress in understanding my problem?" The success of the project at Highfields as compared with a state reformatory is indicated by the fact that a "much lower percentage" of boys at Highfields for three or four months became delinquent after release than boys with 12 or more months at the reformatory. —C. E. Kew.

272. MELTZER, BERNARD N., DOBY, HARRY R., & SMITH, PHILIP M. *Education in Society: Readings*. New York: Crowell, 1958. xiv+498 p. \$3.25. This book of readings places major emphasis upon the relationship between education and the total socialization process. Contributors to the volume include educators, sociologists, anthropologists, psychologists, journalists, and men of affairs. Readings from both "classic" and current writings are included as well as "professional" and semi-popular items. Where the topic discussed is controversial, an attempt has been made to present opposing points of view. The editors deliberately set out to raise or sharpen important issues in the field of education. Brief introductions and comments accompany the selections as a guide for college students. The readings are grouped under such topics as: the field of educational sociology, culture and the school, cultural change and the problem of education, the social functions of education, the social control of education, the school and the community, the teacher as a person, the student as a person, and controversial issues in education. The book will be of value to the college student in a class in educational sociology, to practising teachers, and to the intelligent layman rather than to advanced students of education. —S. R. Laycock.

273. MERRY, FRIEDA KIEFER, & MERRY, RALPH VICKERS. *The First Two Decades of Life*. (2nd Ed.) New York: Harper, 1958. xvii+642 p. \$5.75. In this second edition, the organization and presentation of subject matter and chapter headings remain essentially the same. The scope of the book covers human development from birth to maturity with consideration of several related areas. The summary for each division remains a succinct and inclusive presentation. New items have been added to the suggested activities. In other respects, this edition is a new book. It is larger in size, has 50 more pages and 15 more illustrations which are greatly improved and modernized in their setting. Chapter reference lists have been extended to include numerous studies of the past decade: for example, the chapter on language development previously had 12 references whereas the present edition has 90. This more recent research is referred to throughout the book but discussed in such a way that the student or teacher, though not research oriented, can understand the findings and make application of them. Concepts of development which were earlier accepted but more recently have been challenged have been elaborated to include the challenge with its reason and source. The scope of subject matter has been enlarged by addition of new material in every chapter. This is, of course, more marked in some areas than in others, as for example the section on physical growth. The relationship of activity to growth is emphasized. The Wetzel Grid is included with a sample of the grid and explanation of a case to illustrate its use. The discussion of skeletal growth has been elaborated to present a more complete picture. The chapter on character develop-

ment and religious experience has been enlarged. The chapter on special interest includes more data on children and the comics and a discussion of TV. The authors have written this book for students in teachers colleges. The second edition will serve this purpose, in the opinion of this reviewer, much more adequately than did the previous edition. When used with a small group of teachers this past summer, their reaction was summed up as follows: the interrelationships of behavior and development throughout the book give us a better understanding of the growth process and behavior expectancy which will help us in our classroom situations. —L. R. Schulz.

274. MIERKE, KARL. Konzentrationsfähigkeit und Konzentrationsschwäche. (Power and weakness of concentration.) Bern & Stuttgart: Huber, 1957. 142 p. \$4.00. (International Medical Book Corporation, New York City) In this interesting monograph a series of interrelated experiments are reviewed on a variety of factors such as the effect of hypnosis on the learning of Morse code, the comparison of normal and maximal speed on a multiple choice reaction time apparatus, changes over time, performance on two simultaneous tasks, tachistoscopic perception, etc. Some of the experiments are presented in a rather cavalier fashion so that it is difficult to form an impression about the significance of the results. On the other hand the author provides ample theoretical foundation by presenting a compact history of the use of the interrelated concept "attention" and "concentration" in German language publications as well as some ideas about the development of these functions in children. It is a pity that the author is not equally familiar with the British and American work in this area. —S. G. Vandenberg.

275. MILLARD, CECIL V. Child Growth and Development in the Elementary School Years. (Rev. Ed.) Boston: Heath, 1958. xiv+512 p. \$5.75. This volume is an introduction to the organismic viewpoint in child development. It begins with a thorough definition of the scientific principles of growth and development. This is followed by a description of the interrelationship of all growth. In this chapter the author illustrates, through the use of charts, how all growth is interrelated. Here he develops new insight into child behavior for those unfamiliar with the organismic viewpoint as portrayed by Olsen and Millard. Methods of studying growth are presented and the Courtis technique, a method for ascertaining the percentage of development, is illustrated. The book next covers the various phases of growth in the following areas: physical, motor, intelligence, development of language, creative ability, personal-social, and learning. The chapter on intelligence is noteworthy because of its interesting description of the growth and development of intelligence. Here the real meaning of mental age and its implications are presented. An outstanding feature of the book is the implication of growth research for teachers that are included in each chapter. Millard spells out well the implication of research in child development for the classroom. He also treats certain concomitants of growth—emotion, moral and ethical behavior, personality, discipline, and mental hygiene—from the standpoint of growth and development research. A strong feature of the book is the excellent up-to-date bibliographies at the end of each chapter. Coverage of the broad area of child development is another feature. The effectiveness of the book as a text would be enhanced by the inclusion of case studies now in the files at Michigan State University. Illustration of the short principles by case study add much to the interest for the reader. The volume should serve as a thorough introduction to the study of child development. —D. Dinkmeyer.

276. MILLARD, CECIL V., & ROTHNEY, JOHN W. M. The Elementary School Child. New York: Dryden, 1957. xii+660 p. \$4.90. A collection of case materials principally for the study of social and intellectual development during the elementary school years. Each of 22 case studies includes the following: (a) a developmental curve which represents the average of several developmental age indices (e.g. height age, weight age, mental age, academic achievement age); (b) a preview which briefly describes the child's behavior and development in kindergarten; (c) background and development, which consists of several paragraphs and tables depicting the salient features of the child's family life, school grades, achievement and intel-

ligence test scores, and a descriptive rating scale of "mental characteristics"; (d) a developmental analysis which is a series of six graphs in which equivalent growth ages in physiological growth, reading, language arts, intelligence, social science achievement, and arithmetic achievement are plotted against chronological age; (e) observation notes in chronological order through the elementary grades taken by teachers and outside observers; (f) teachers' summaries made by the teacher of each grade at the end of the year; (g) a postscript to tell what happened when the child went on to high school; (h) discussion problems. The book supports the "organismic growth" concept, which is reflected in the introductory chapters, in the developmental curves, and in the organization and interpretation of the case materials. —J. R. Suchman.

277. MOHR, GEORGE J., & DESPRES, MARIAN A. *The Stormy Decade: Adolescence*. New York: Random House, 1958. 272 p. \$3.95. This book is designed to provide the adult with greater understanding of the period of life commonly termed adolescence. The authors address themselves especially to the problems of emotional and social development and treat physical and intellectual development only incidentally. The first portion of the book is devoted to a description of emotional and social development of the individual prior to adolescence. The basic orientation of the book is psychoanalytic and frequent reference is made to theories originating in the work of Freud. Secondly, the frame of reference is that of the sociologist or social anthropologist. The significance of the sociocultural environment in defining the problems of adolescence is constantly pointed up throughout this work. In addition to a description of the general normal course of adolescent development, a portion of the book is devoted to the mental health problems of the adolescent. Emotional disturbances including such facets as neurosis, psychosis, suicide, and juvenile delinquency are described and illustrated with case materials. Finally, a section is devoted to mental hygiene for the adolescent as it can be practiced by both the family and the community. —E. R. Dubin.

278. PODOLSKY, EDWARD. (Ed.) *The Neuroses and Their Treatment*. New York: Philosophical Library, 1958. xiv+555 p. \$10.00. This volume is a collection of clinical reports by authorities on various aspects of the neuroses. It will be of interest to professional personnel engaged in the study or treatment of mental disease. For those particularly interested in the psychopathology of infancy and childhood, there are several papers, notably two by Spitz in which he presents succinctly, yet clearly, his observations and interpretations of syndromes resulting from mother deprivation. He describes the apathy and regression to neonatal status seen in infants who lost their mothers at three months and contrasts this clinical picture with the "anaclitic depression" and panic reactions which occur when the mother is lost during the second half of the first year of life. In discussing "eight-months anxiety," Spitz theorizes that this first manifestation of overt anxiety is not seen until the third quarter of the first year because it is not until then that the ego is differentiated and only the ego can experience anxiety. Description and interpretation lead to therapy which Spitz narrows down to prophylaxis, substitution, and restitution. Among the 40 papers are contributions to the study of hysteria in children, anxiety in children with rheumatic fever, and a paper by Freed and Peifer on the treatment of hyperkinetic, emotionally disturbed children with chlorpromazine. This study of 25 children shows the value of the drug in reducing hyperactivity and combativeness, thereby facilitating, indirectly, the learning process. Results were most significant when drug and psychotherapy were combined. The majority of the papers deal with neurotic manifestations as they appear in the more mature organism, through youth and middle-age on to senility. Discussion of a variety of therapeutic procedures currently in use bring the reader up to date on what may be expected of sedation, carbon dioxide, lobotomy, meprobamate, abreaction therapy and other means aimed at the most widespread of all mental disturbances, the neuroses. —J. H. Di Leo.

279. ROMAN, MELVIN. *Reaching Delinquents Through Reading*. Springfield, Ill.: Charles C. Thomas, 1958. xv+125 p. \$4.50. This book is primarily concerned with the most effective treatment of the "hard core" delinquent adolescent who

shows reading retardation together with emotional disturbance and antisocial behavior. Under experimentally controlled conditions it compares three therapeutic approaches: (a) Group Remedial Reading, where reading instruction is conducted in a group setting in terms of an individual's disabilities as indicated by an oral reading test; (b) Interview Group Therapy, a form of psychotherapy where the interaction among the members and therapist is studied, directed toward improving the mental health of the members; and (c) Tutorial Group Therapy, a form of group therapy where the correction of reading disabilities is integrated with the improvement of mental health. Chapters discuss the problem and basic hypotheses; related literature and etiology of reading disabilities; the procedure on collecting data; results of the data and their treatment; a discussion of the qualitative and quantitative results; and implication and suggestions for further research. The results of the investigation indicate the "greatest positive change" in psychosocial adjustment and reading took place in the tutorial group. The study shows that "remedial reading is not enough" and that "psychotherapy offers too little." —C. E. Kew.

280. SCHWARZ, BERTHOLD ERIC, & RUGGIERI, BARTHOLOMEW A. Parent-Child Tensions. Philadelphia: Lippincott, 1958. xv+238 p. \$4.95. A psychiatrist and a psychologically oriented pediatrician collaborated on this non-technical, authoritative presentation of the dynamics of child development, which stresses the crucial role of parent-child relations. The book traces emotional development through the psychosexual stages, while strenuously avoiding the use of technical terminology in order to reach as wide an audience as possible. The oedipal phase, here called "The First Romance," is particularly well handled, with the authors pointing out the critical effect which a parent's emotional difficulties can have on the mental health of the child. Separate chapters are set aside for discussions of such emotional problems as overeating, dependency, bed-wetting, school phobias, and sexual deviations. The emotional correlates of physical handicap, mental deficiency, adoption, and surgery are explored in detail and every discussion is carefully exemplified with many illustrative cases which should persuade even the most skeptical reader of the cogency of the mental health message. The dynamics of the various problems are always carefully articulated but treatment methods receive only parenthetical attention. The authors continually stress the parents' responsibility for seeking help with their and their children's emotional problems, but where such help can be obtained is never clarified, other than repeated reference to "the physician." The lay reader may, in fact, conclude from the presentation that the physician is the only authority on problems of an emotional nature since the word psychiatrist appears nowhere in the text. In spite of the fact that the authors stress the value of the "new collaborative technic" of intensive bilateral or multilateral treatment "in which one physician studies the feelings and the behavior patterns of the child while other physicians study the feelings and the behavior patterns of the parents," no direct mention is made of child guidance clinics or of the nonmedical specialists in the mental health field. These omissions notwithstanding, this book fills an important need for a popular interpretation of psychodynamic principles and both the clinical and nonclinical student of child development might profitably read and give it as a reference to interested parents. —A. O. Ross.

281. SPITZ, RENÉ A. No and Yes on the Genesis of Human Communication. New York: International Universities Press, 1957. xii+170 p. \$4.00. The subject of this book is the inception of semantic and verbal communication, the beginning of thought processes and concept formation. The ontogenesis of these traits in the maternal-infant relationship are explored from birth to their successful development. Spitz's observations are largely based upon his own investigations, but he draws support for his conclusions from a large variety of sources. In the course of his investigation the author throws considerable light upon the mechanism of development of the "self" from the "non-self," and upon the objectification of the organism's fundamental values. It is the reviewer's considered opinion that this is probably the most important book on the genesis of human communication that has ever been published. This is the fundamental book on the subject. —A. Montagu.

282. STRANG, RUTH. *The Adolescent Views Himself*. New York: McGraw-Hill, 1957. xiv+581 p. \$7.95. This book is an attempt to write a psychology of adolescence by gathering from adolescents themselves statements as to how they perceive their own growth and behavior, the world in which they find themselves as well as their future development, and combining these data with those of other studies of this growth period. The work is the result of Strang's belief that self-concepts and their role have been much neglected in previous discussions of the adolescent age period. Data as to the adolescents' views of themselves and their world were gathered from a variety of groups and through the use of a variety of methods. Students in junior and senior high school English classes were asked to write unstructured or semistructured compositions on such topics as "The teachers who helped me most," "How I feel when I take home my report card and what my parents do about it," "How I feel about growing up or what growing up means to me," and "Why it is sometimes hard to get along with parents." Other methods included obtaining recordings of group discussions and interviews, having students react to such inventories as the Mooney Problem Check List and Billett-Starr Youth Problems Inventory and asking teachers and personnel workers to report on observed behavior. The original data obtained by such methods were combined with findings of other studies reported in the literature. The presentation is divided into such units as, how adolescents view the world in which they live, how they feel about themselves, how they feel about growing up, what plans they have for meeting future developmental tasks, the problems they feel they face in achieving physical and sexual maturity, problems met in achieving scholastic competence, difficulties in achieving independence from the family without arousing unnecessary antagonism and barriers to achieving socially responsible behavior. The author very wisely did not stop with problems adolescents feel they face, but added a section on what adolescents feel they need by way of favorable conditions for learning and what kind of guidance they say they want. One or two examples may serve to illustrate how the author combined the original data with other findings reported in the literature. In the discussing of problems faced in achieving physical and sexual maturity, a brief review is given of some of the major findings relative to average rates of growth in various dimensions and the wide individual variability characteristic in our culture. This brief review is followed by a discussion of attitudes of adolescents toward their own growth as revealed in the original compositions, interviews, and other data gathered by the author. Similarly, attitudes of selected "early matures" and "late matures" are documented with quotations from original compositions; likewise, attitudes toward achieving physical efficiency, health, personal appearance, "proper" weight, differences in stature and similar problems. In the discussion of building satisfying social relations, the original expressions from the adolescents are interwoven with findings from available studies. Each section in the book represents this synthesis of self-concept data gathered by the author and data from other studies. In commenting on a work of this type, perhaps several questions arise in the reader's mind. First, how carefully were the original data gathered? Secondly, how fruitful are the syntheses? Thirdly, to whom can the book be recommended? As for the original data, it appears the author gathered them primarily for illustrative purposes or to make more concrete the generalizations that have been built up in other studies. The groups of subjects from which the data were gathered are not described in detail and no statement is made as to how adequate a sample they represent. Hence, they appear to be illustrative only. The syntheses usually represent a brief review of the pertinent literature, and the addition of the original data definitely aids in enriching the meaning of the more abstract generalizations. To a very limited extent, the original data serve as a check on past claims. For example, the author may refer to a generalization that has appeared in the literature and ask, in essence, do we find this in the spontaneous expressions of adolescents when they report their feelings about themselves and their environment? However, the extent to which a generalization holds cannot be estimated since the adequacy of the samples is not considered. To whom can the book be recommended? It is a useful source of concrete material supplied by adolescents themselves and as such will be helpful to students, to parents, and to teachers of adolescents. The research worker

may find suggestions for hypotheses in the extensive original data supplied. —R. H. Ojemann.

283. TURNER, MARION E. *The Child Within the Group*. Stanford: Stanford Univer. Press, 1957. viii+93 p. \$3.00. The study was designed to provide answers to the questions: "Can self-control be developed in young children through a program of group self-government?" and "What are some of the factors that enter into the development of self-control in children?" Experiences of 30 4- to 9-year-old, private-school children who participated in an experiment in self government over a three-year period are described. Verbatim records of the children's discussions which were obtained during the last two years of the study form the principal section of the book. A constitution which resulted from the group's deliberations is reproduced in the appendix. Data for the study were collected during the period 1920-1923 and are published at this time because, according to the author, nothing of a similar nature has been published and because it is her hope that the findings may stimulate further study in this area. —J. Walters.

284. VINCENT, CLARK E. *Readings in Marriage Counseling*. New York: Thomas Y. Crowell, 1957. xii+500 p. \$6.00. This is a series of 52 articles, averaging about ten pages each, and revolving around the central problem of marriage counseling. The authors include sociologists, psychologists, psychiatrists, physicians, educators, clergymen, social workers and lawyers. This serves to underscore the wide variety of approach. The articles are organized under seven headings: marriage counseling as an emerging and interdisciplinary profession; premarital counseling; definitions, methods and principles; marriage counseling with individuals, couples and groups; theories of personality formation and change applicable to marriage counseling; research in marriage counseling; and questions related to marriage counseling as an emerging profession. There is a heavy emphasis upon psychiatric concepts, interpretations and processes. Numerous case histories abound by way of illustration. The purposes of the book are: (a) to show the complexity of family problems, (b) the variety of origins and procedures in marriage counseling, (c) the many applications of counseling techniques, and (d) the great need for humility among counselors. The content of the book is uneven, as is the case in all such volumes. The basis of judgment must be essentially that of editorial aptness, i.e., how well the articles are selected and fitted together. On this basis, the editor deserves complete praise. The book is well conceived and executed and should be very helpful, not only to professional counselors but also to others called upon for guidance in marriage difficulties. —J. H. S. Bossard.

285. WHITE, VERNA. *Studying the Individual Pupil*. New York: Harper, 1958. xvi+238 p. \$4.00. The premise upon which this volume is founded is "that teachers today must assume the responsibility of studying individual pupils and planning programs for them in the light of the evidence and with the help of all available personnel." As a result the author provides us with a philosophy and a methodology of child study which she believes appropriate for acceptance and employ by the individual classroom teacher. Chapter 1, "Why Study Pupils as Individuals?" and Chapter 2, "Is the Study of Individual Pupils Possible and Feasible for Classroom Teachers?", contain the theoretical framework which justifies and calls forth the methodological material which follows. Two beliefs are clarified: one, that the ultimate objective of education is to assist children to a happier, more satisfying life; the other, that where school authorities and facilities are convinced that the study of the individual child by his teacher has high priority on a teacher's time, such a program of study is possible and feasible. The author is aware of some of the implications of such a "child study" point of view and gives some expression to them in the sixth chapter entitled "What Cautions Should Be Exercised by Teachers as They Study Pupils?" Quotations from Buhler and Jersild indicate that a nice distinction between education and therapy must be observed, and that the function of teachers and psychologists cannot arbitrarily comeingle. Following the quotations of these warnings, White proceeds to discuss the major ethical considerations involved in obtaining highly personal informa-

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tion about individual children and their parents. Having obtained this information, the teacher is cautioned against the consequent involvement and counseled to make only non-therapeutic responses. "All people inexperienced in psychological tasks must guard against too great a dependence on the teacher being built up by the individual who is receiving understanding." The remaining chapters are concerned with the practical aspects of the problem. Chapter 3 alerts teachers to special indications of a child's need for individual study. Included are such factors as poor attendance, loss of interest, health factors and physical deviations, problems in achievement, non-acceptance by classmates, emotional factors, and sociometric factors. Chapter 4 deals with techniques and procedures for assembling data, while chapter 5 discusses the vital matter of distilling and interpreting the findings. The seventh and final chapter discusses what the point of view conveyed in this book means for the preservice and inservice education of teachers. The writer attempts to describe the kind of individual suited to the task of studying the individual pupil. Though admitting that it is an ideal list, White formulates 67 distinct competencies "required of a person who is successful in studying individual pupils." To the end that teachers may acquire these additional competencies, preservice and inservice training programs are outlined.

—A. Grams.

286. WINNICOTT, D. W. *Mother and Child*. New York: Basic Books, 1957. xii+210 p. \$3.50. Winnicott has written this book for what he describes as "the ordinary devoted mother." These natural mothers are presumably so unself-consciously absorbed in their function that they do not read books. Hence, the author admits it will primarily be read by those "who have already been through the mothering experience and who . . . may be able to help to do what is so much needed at the present time—to give support to the ordinary good mother, educated or uneducated, clever or limited, rich or poor, and to protect her from everyone and everything that gets between her baby and herself." Well meaning public administrators, doctors, and nurses who have special interests in problems of physical health are seen by the author as having a tendency to interfere with the mother's natural instincts to take full and ultimate responsibility for her infant. The book does not advise the reader how to protect the ordinary devoted mother. In fact, it is written as though the author had forgotten his rationale and hoped that the reader was an ordinary devoted mother actually currently engaged in caring for her infant or young child. In a richly sentimental fashion the author writes as though speaking directly and informally to the young mother. He tries to create empathy in the reader for both the psychology of the infant and the relationship. He leaves problems of the formula and diaper rash to Spock, taking up physiological processes only to elaborate their psychological meaning. He concentrates on the inner experiences of the infant or young child and mother. There is a consistent effort to acquaint the young mother with the infant's problems of managing his own feelings, his greed and destructive impulses felt relative to the source of his nurturance. Repeatedly, however, the author emphasizes that the natural mother already knows this intuitively and only needs to be protected from agencies which would cause her to lose confidence in her own knowledge. Some of the assertions made by the author are as follows: (a) anger signifies that the child has reached a point of believing in something and in someone; (b) weaning cannot be successful unless the feeding experience was satisfactory because the baby cannot give up what he has never had; (c) a sad baby may need physical and demonstrative love but he should not be bounced and tickled and in other ways distracted from his sadness, since he cannot grow without experiencing and coming to grips with his own feelings and in his own way; (d) when the mother remains calm and unhurt in the face of the infant's raging desire to destroy everyone and everything, she strengthens his ability to see that what he feels to be true is not necessarily real, that phantasy and fact, both important, are nevertheless different from each other; (e) crying is important to the baby because his psychological development necessitates experiencing himself making a noise. There is constant reassurance that the supposedly tempestuous affective life of the infant is something to be permitted rather than prevented, a necessary working through essential to attainment of the next stage. The mother is frequently told that though she is as important as

the gardener to the plant, there is an autonomous process unfolding of which she in many ways must consider herself merely a spectator. In general the book provides a picture of a mother completely immersed in a closed circle relationship with her infant, a picture usually accompanied by suggestions that she is enjoying the process. The father's natural function is merely to support and protect this exclusive process, rather than to be drawn out of his role into assisting in the mothering as such. The professional reader may be interested in this volume inasmuch as Winnicott is President of the British Psychoanalytic Society, Past President of the Pediatric Section of the Royal Society of Medicine, and is an influential advocate of Melanie Klein's theories of infancy and early childhood. Technical papers presenting Winnicott's thinking have not been noted for clarity of exposition and precision of definition (see *Brit. J. med. Psychol.*, 1955, 28, 89-100, for an example). Use of simple common sense analogies and concrete examples for the lay reader in this volume makes it possible for the professional reader to follow the author's line of thought. Unfortunately only portions of the theory are presented in this book. The psychoanalytic concepts most adequately covered are those given special application in Klein's theories such as the splitting of the ego, aggression, guilt, ambivalence, and the development of object relations. Other areas of psychoanalytic theory given more customary treatment are the repetition compulsion, the Oedipus complex, instincts, and stages of psychosexual development. —R. Q. Bell.

287. Directory for Exceptional Children. (3rd Ed.) Boston: Porter Sargent, 1958. 320. p. \$6.00. This is the third and most recent edition of the Directory which compiles and describes the educational and training facilities for the emotionally and socially maladjusted, boarding facilities for the orthopedically handicapped and the cerebral palsied, private boarding schools for the mentally retarded, day schools for the mentally retarded, state schools for the mentally retarded, schools for various and multiple handicaps, tutoring and remedial schools, schools for the blind, schools for the deaf, schools for the speech handicapped, psychiatric and guidance clinics, and speech and hearing clinics. In addition, there is a listing of state programs and personnel as well as relevant associations, societies and foundations. A convenient index lists well over 2000 entries. Each specialty is arranged according to geographic regions rather than alphabetically so that one can look for particular facilities in the New England Area, Middle Atlantic states, South Atlantic states, South Central states, East North Central, West North Central, and Far West. Included under most listings are the name and address of the facility, its administrator, nature of services, number enrolled, number of teachers and staff, tuition fees, a description of the variety of needs which are met by the facility, etc. This directory should be of invaluable aid to social agencies, clinics, schools, physicians, ministers, psychologists, social workers, and parents. While the amount of information given for each facility varies, one nevertheless has an immediate listing of available facilities for exceptional children to which one can direct inquiries for more specific information. —A. M. Kaplan.

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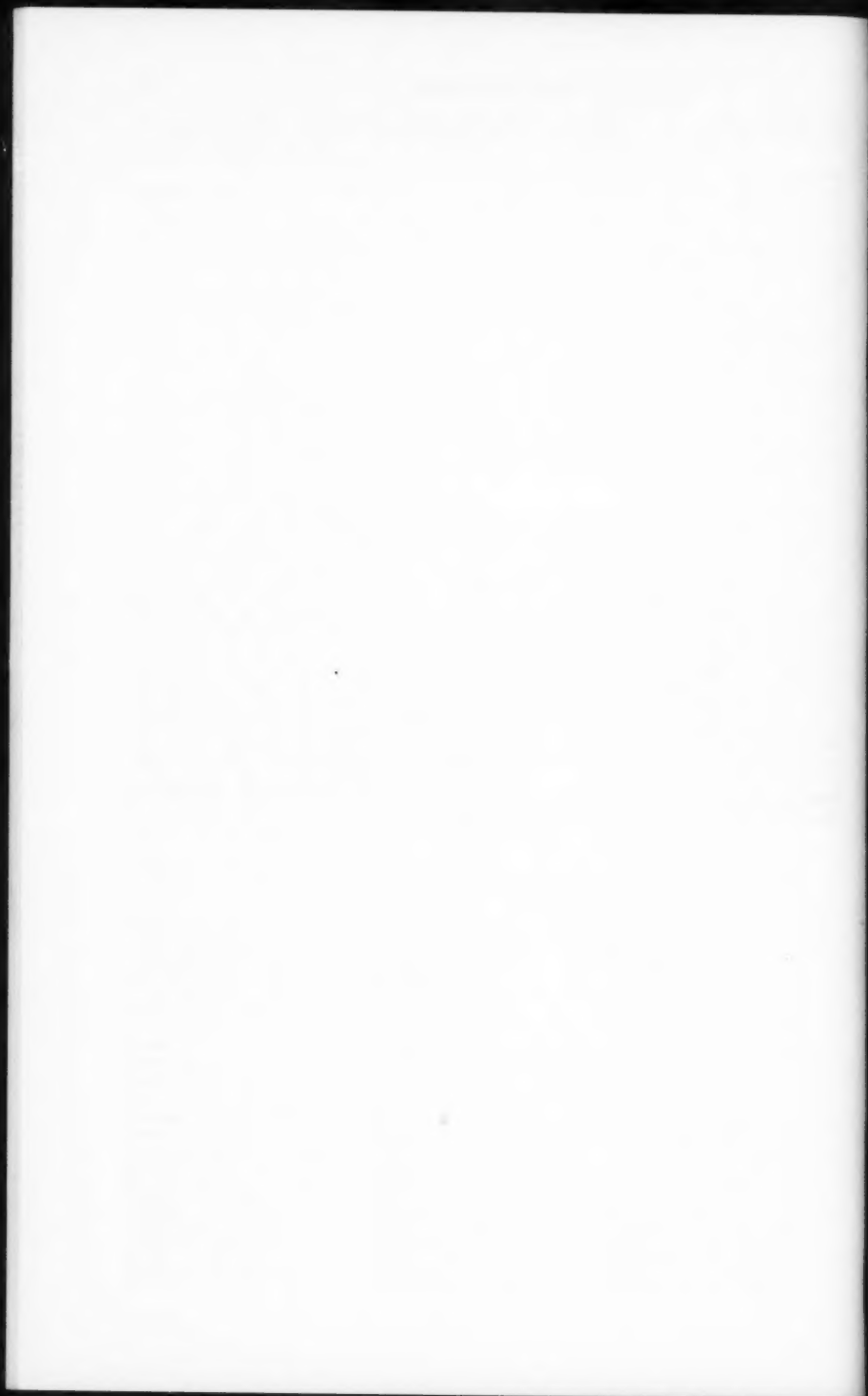
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